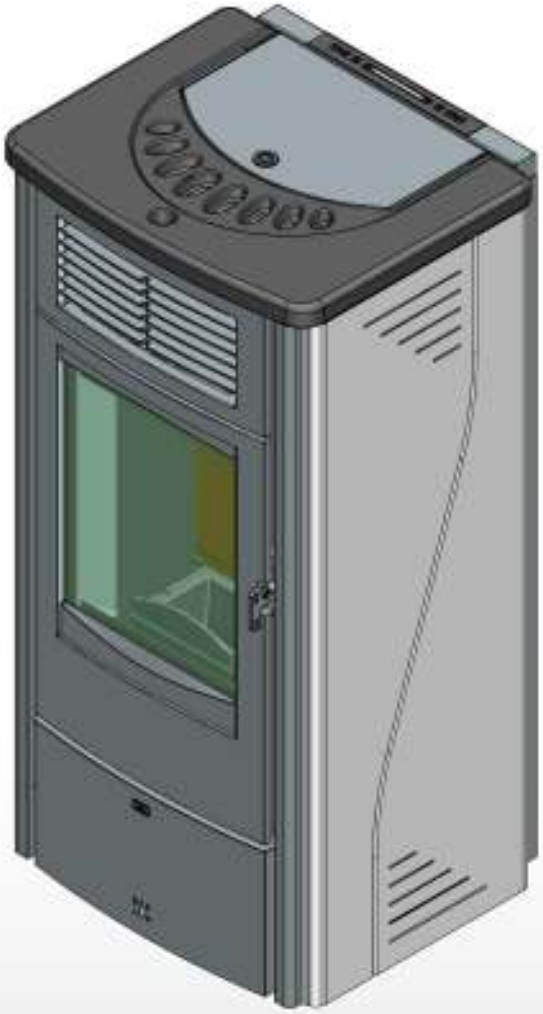
SUPERIOR®

Pellet stove

SAMANTA THERMO 11, SABRINA THERMO 11, SVEVA THERMO 11, SIRIA THERMO 11



INSTRUCTION FOR INSTALLATION, USE AND MAINTENANCE

Robeys

A PASSION FOR QUALITY

The instruction booklet is an integral part of the product.

PIAZZETTA PELLET BOILERS AND STOVES
SUPPLEMENTARY INSTALLATION INSTRUCTIONS FOR THE UK MARKET
TO BE READ IN CONJUNCTION WITH THOSE IN THE INSTRUCTION BOOKLET

READ THE INSTRUCTION BOOKLET AND THESE SUPPLEMENTARY INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

These instructions together with those in the instruction booklet cover the basic principles to ensure the satisfactory installation of the stove, although detail may need slight modification to suit particular local site conditions.
In all cases the installation must comply with current Building Regulations, Local Authority Byelaws and other specifications or regulations as they affect the installation of the stove.
It should be noted that the Building Regulations requirements may be met by adopting the relevant recommendations given in British Standards BS 8303, BS EN 15287-1:2007 as an alternative means to achieve an equivalent level of performance to that obtained following the guidance given in Approved Document J.

Please note that it is a legal requirement under England and Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at www.hetas.co.uk.

CO Alarms:-
Building regulations require that when ever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturer's instructions.
Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

HEALTH AND SAFETY PRECAUTIONS

Special care must be taken when installing the stove such that the requirements of the Health and Safety at Work Act are met.

Handling
Adequate facilities must be available for loading, unloading and site handling.

Fire Cement
Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash immediately with plenty of water.

Asbestos
This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

Metal Parts
When installing or servicing this stove care should be taken to avoid the possibility of personal injury.

PREPARATORY WORK AND SAFETY CHECKS
IMPORTANT WARNING

This stove must not be installed into a chimney that serves any other heating appliance.
There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room.

Chimney

Note: The flue is under a small positive pressure so all flue joints must be sealed with a suitable high temperature silicone sealant to ensure there is no flue product leakage into the room.

For the stove to perform satisfactorily the chimney height must be sufficient to ensure an adequate draught of approximately 12 Pa so as to clear the products of combustion and prevent smoke problems into the room.

NOTE: A chimney height of not less than 3.5 metres measured vertically from the outlet of the stove to the top of the chimney should be satisfactory. If using factory made metal flue pipe refer to the detailed appliance instructions. Alternatively the calculation procedure given in EN 13384-1 may be used as the basis for deciding whether a particular chimney design will provide sufficient draught.

Please Note, this appliance has been tested by the manufacturers and works on a 3.5m straight flue.

The outlet from the chimney should be above the roof of the building in accordance with the provisions of Building Regulations Approved Document J.

If installation is into an existing chimney then it is essential that it is sound and have no cracks or other faults which might allow fumes into the house. Remedial action should be taken, if required, seeking expert advice, if necessary. If it is found necessary to line the chimney then a flue liner suitable for solid fuel must be used in accordance with Building Regulations Approved Document J.

Any existing chimney must be clear of obstruction and have been swept clean immediately before installation of the stove. If the stove is fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

If there is no existing chimney then either a prefabricated block chimney in accordance with Building Regulations Approved Document J or a twin walled insulated stainless steel flue to BS 4543 can be used. These chimneys must be fitted in accordance with the manufacturer's instructions and Building Regulations.

Please Note, pellet stoves have a flue outlet size of 80mm and are suitable for use with 100 and / or 125mm flues depending on site conditions.
Please refer to Robeys website, Brochure Downloads / Help & Advice for flue sizes etc.

Any bend in the chimney or connecting fluepipe should not exceed 45°. 90° bends should not be used except at the stove connection to the flue.

Combustible material should not be located where the heat dissipating through the walls of fireplaces or flues could ignite it. Therefore when installing the stove in the presence of combustible materials due account must be taken of the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

Adequate provision e.g. easily accessible soot door or doors must be provided for sweeping the chimney and connecting fluepipe, also to permit visual checks on the integrity of the flue when the appliance is serviced. Ensure that all access doors in the flue can be adequately sealed after service.

Hearth

The hearth should be able to accommodate the weight of the stove and its chimney if the chimney is not independently supported. The weight of the stove is indicated in the brochure.

The stove should always be installed on a non-combustible hearth or base of a size and construction that is in accordance with the provisions of the current Building Regulations Approved Document J.

The clearance distances to combustible material beneath, surrounding or upon the hearth and walls adjacent to the hearth should comply with the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

If the stove is to be installed on a combustible floor surface, it must be covered with a non-combustible material at least 12mm thick and extending in front and to the sides of the stove as shown in the detailed instructions, and in accordance with Building Regulations Approved Document J.

Combustion air supply

In order for the stove to perform efficiently and safely there should be an adequate air supply into the room in which the stove is installed to provide combustion air. This is particularly necessary if the room is double-glazed and well sealed. It may be necessary to increase the air vent size in property with low air permeability ($\leq$ 5.0 m^3 /(h.m^2).
The provision of air supply to the stove must have a total free area at least equal to the size given in the Technical Data section in the instructions and be in accordance with current Building Regulations Approved Document J. An opening window is not appropriate for this purpose.
IMPORTANT NOTE: If applicable and the appliance is being fitted within a fireplace recess, specialist advice should be sought before fitting any permanent ventilation within this area.
For inset stoves built into a fireplace or enclosure, convection air vents must be fitted at high and low level to ventilate the chamber with minimum free area as stated in the Technical Data section.

Connection to chimney

Stoves have a rear flue connector that allows connection to either a masonry chimney or a prefabricated factory made insulated metal chimney in accordance with the instructions. In some cases it will be necessary to fit an adaptor to increase the diameter of the flue to the 150 mm section of the chimney or liner. Ensure that there is access to sweep the flue completely including the internal parts of the stove.

Electrical Services

The installation of any electrical services during the installation of this appliance must be carried out by a registered competent electrician and in accordance with the requirements of the latest issue of BS 7671

Carbon Monoxide Alarm

A carbon monoxide alarm complying with BS EN 50292 must be fitted in the same room as the appliance. It should be positioned on the ceiling at least 300mm from any wall or, if it is located on a wall, as high up as possible (above any doors and windows) but not within 150mm of the ceiling. The alarm should also be between 1m and 3m horizontally from the appliance.

Commissioning and handover

Ensure loose parts are fitted in accordance with the instructions given in the instruction booklet.

On completion of the installation allow a suitable period of time for any sealants and cement to dry out. On Thermo boiler stoves ensure that the system and stove has been fully vented and that system controls are operating before lighting. When lit check to ensure that all smoke and fumes are taken from the stove up the chimney and emitted safely to atmosphere. Follow the detailed instructions in the relevant section.

On completion of the installation and commissioning ensure that the operating instructions for the stove are left with the customer. Ensure to advise the customer on the correct use of the appliance. Advise the correct pellet fuel to be used on the stove and warn them to use only the recommended fuels for the stove. It is important that the fuel is stored in a dry place, particularly once a bag is opened. If bulk fuel storage is used expert advice should be sought.

Advise the user what to do should smoke or fumes be emitted from the stove. The customer should be warned to use a fireguard to BS 8423:2002 in the presence of children, aged and/or infirm persons.

SUPPLEMENTARY OPERATING INSTRUCTIONS FOR THE UK MARKET TO BE READ IN CONJUNCTION WITH THOSE IN THE INSTRUCTION BOOKLET

READ THE INSTRUCTION BOOKLET AND THESE INSTRUCTIONS CAREFULLY BEFORE USING THE STOVE

WARNING NOTE

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Fume emission is potentially dangerous and must not be tolerated. In the event of fume emission from the appliance, then the following immediate action should be taken: -

(a) Switch off the stove immediately
(b) Open doors and windows to ventilate room and then leave the premises
(c) When safe to do so, check for flue or chimney blockage and clean if required
(d) Do not attempt to relight the stove until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean at all times.

IMPORTANT NOTES

General

Before lighting the stove check with the installer that the installation work and commissioning checks described in the installation instructions have been carried out correctly and that the chimney is clean, sound and free from any obstructions. As part of the stoves' commissioning and handover the installer should have shown you how to operate the stove correctly.

CO Alarm

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

Use of fireguard

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2002.

Chimney cleaning
The chimney should be swept at least twice a year. It is important that the flue connection and chimney are swept prior to lighting up after a prolonged shutdown period.

The installer will have provided access for flue cleaning, such as a soot door. After sweeping the chimney the stove flue outlet and the flue pipe connecting the stove to the chimney must be cleaned. It is essential that all seals are secure and effective before reusing the stove. This must only be carried out by suitably qualified personnel.

Periods of Prolonged Non-Use
If the stove is to be left unused for a prolonged period of time then it should be given a thorough clean to remove ash and unburned fuel residues.

Extractor fan
There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to malfunction and emit smoke and fumes into the room.

Aerosol sprays
Do not use an aerosol spray on or near the stove when it is alight.

Chimney Fires
If the chimney/flue is thoroughly and regularly swept, chimney fires should not occur. However, in the unlikely event of a chimney fire turn off the stove immediately and isolate the mains electricity supply. Do not open the door of the stove. This should cause the chimney fire to go out. If the chimney fire does not go out when the above action is taken then the fire brigade should be called immediately. Do not relight until the stove, chimney and flueways have been cleaned and examined by a professional.

Permanent air vent
The stove requires a permanent and adequate air supply in order for it to operate safely and efficiently.
In accordance with current Building Regulations and the instructions the installer will have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion air. This air vent should not under any circumstances be shut off or sealed.

USER OPERATING INSTRUCTIONS

Please read the important notices given above before referring to the main instruction book for detailed operating instructions.

Recommended fuels

The stoves are designed to burn good quality wood pellets only, no other fuel can be used. The pellets must be kept dry at all times otherwise malfunction can occur. Check the section 'Fuels' for detailed specification. Do not attempt to burn rubbish on the stove.

Door operation

Do not open the door during operation, the door and its seal are important functional components. If the door is accidentally opened whilst the stove is running it will switch off.

Lighting of fire

Ensure the grate and support are cleaned and free of any unburned pellets before use. Do not empty the grate into the hopper. Check the hopper contains sufficient fuel. On boiler stoves ensure that the water system is full, set to the correct pressure and the controls are working satisfactorily. The installer will have explained use of the controls.

The stove can be lit and programmed using the keypad on the stove or (where applicable) the remote control. See the detailed instructions. The ignition and operation of the stove is then automatically controlled and monitored by the control system. Do not be concerned if the stove appears to be inactive for several minutes during the ignition process as it goes through various self checks. Do not be tempted to open the door as this will stop the ignition process.

Refuelling

Keep the hopper well filled but do not allow fuel to spill into the top of the stove.

Cleaning and maintenance

The instructions detailed in the section "Maintenance" in the instruction booklet should be followed. The grate and glass should be cleaned daily and other items at the specified intervals as shown in the instructions.

Spare Parts

Spare parts can be obtained from Robeys Limited. Telephone 01773 820 940

Trouble shooting

The instructions detailed in the relevant section in the instruction booklet should be followed.

Dear Customer,
Thank you for having chosen one of our products, which is the result of years of experience and continuous research aimed at making a superior product in terms of safety, reliability and performance.
This booklet contains information and advice for safe and efficient use of your product.

DT2010001-01

IMPORTANT INFORMATION

DT2010208-07

• This instruction booklet has been prepared by the manufacturer and is an integral part of the product. In the event of sale or relocation of the product make sure this booklet accompanies it, since the information contained in it is intended for the purchaser and for anyone involved in the installation, use and maintenance of the product.
• Read the instructions and the technical information contained in this booklet carefully before proceeding with installation, use or any repairs.
• The observance of the instructions and technical information in this instruction booklet guarantees the safety of persons and property; it also ensures more efficient operation and an increased lifespan.
• The factory cannot be held responsible for damage or injury due to failure to comply with the instructions for installation, use and maintenance given in this booklet, or due to unauthorised alterations or to the use of other than original spare parts.
• Appliance installation and use must conform with the manufacturer's instructions as well as with European and national legislation and local regulations.
• Installation, electrical connection, checks, maintenance and repairs are operations which must be carried out exclusively by qualified and authorised personal with specialised knowledge of the product.
• The wall against which the product is to be placed must not be of wood or any other flammable material. For correct installation it is also important to comply with the section entitled "**MINIMUM SAFETY DISTANCES**".
• Before installing the product read all instruction booklets relevant to the cladding, the ventilation kit and any other accessory.
• Check that the floor where the product is to be installed is perfectly level.
• When handling the steel parts of the cladding it is advisable to use clean cotton gloves to avoid leaving fingerprints that are difficult to remove at first time of cleaning.
• The stove must be assembled by at least two persons.
• Connect the pellet stove to the electricity supply only after it has been connected by an expert to the flueway.
• The plug at the end of the power cable must be easily accessible after installation.
• Use only recommended wood pellets in the pellet stove (refer to section entitled "**FUEL**").
• Never use liquid fuels to light the pellet stove or to relight the embers.
• Ensure that the area where the stove is installed is properly ventilated while the stove is lit.
• In the event of malfunctioning the fuel supply will be stopped. Restart the stove only after having eliminated the cause of the malfunction.
• Stop using the product in the event of fault or malfunctioning.
• Do not remove the protective grille from the pellet hopper.
• Any build-up of unused pellets in the burner left over from repeated failed ignitions must be removed before attempting to light the stove again.
• Stove operation can result in surfaces, handles, flue pipe and glass becoming extremely hot. When the stove is in operation, only touch these parts if wearing protective clothing otherwise use suitable tools.
• Because of the build-up of heat on the glass, take care that those who are unfamiliar with stove operation do not linger near the stove.
• This appliance must not be used by persons (including children) with reduced physical, sensory or mental capacities, or lack of experience or knowledge unless they are supervised or instructed on use of the appliance by the person who is responsible for its safety.
• Creaking may be heard while the stove is in operation or cooling down. This is not to be considered a defect, but is a consequence of thermal expansion of the component materials.
• The product you have purchased may different slightly from the one illustrated in this booklet since the pictures are only given as an indication and not an exact portrayal.

⚠ **In the event of difficulties or if you are unable to understand the instruction booklet, contact your local dealer.**

⛔ **Do not place objects which are not heat-resistant on top of the stove or within the recommended minimum safety area.**
Do not open the door while the stove is in operation or operate the stove when the glass is broken.

See the guarantee certificate enclosed with the product for the terms, limitations and exclusions.
In line with its policy of constant product improvement and renewal, the manufacturer may make changes without notice.
This document is the property of the factory; no part of it may be disclosed to third parties without the written permission. All rights reserved.

REFERENCE STANDARDS

DT2010209-05

EN 14785	Residential space heating appliances fired by wood pellets. Requirements and test methods.
EN 832	Thermal performance of buildings - Calculation of energy use for heating - Residential buildings.
UNI 10683	Heat generators fired by wood or other solid biofuels - Installation requirements.
UNI 10847	Single flue systems for liquid and solid fuel generators - Maintenance and inspection - Guidelines and procedures
UNI 7129	Gas installations for domestic use fired by mains gas supply. Design, installation and maintenance.
DIN 51731 class HP2	Fuels.
ÖNORM M7135	Fuels.
CEI EN 60335-1	Safety of household and similar electrical appliances. - Safety. Part 1: General requirements.
CEI EN 50165	Electrical equipment of non-electric appliances for household and similar purposes – Safety requirements.
EN 1856-1	Chimneys - Requirements for metal chimneys - Part 1: System chimney products.
EN 1856-2	Chimneys - Requirements for metal chimneys - Part 2: Metal liners and connecting flue pipes.
EN 1443	Chimneys – General requirements.

CONTENTS

DT2010187-00

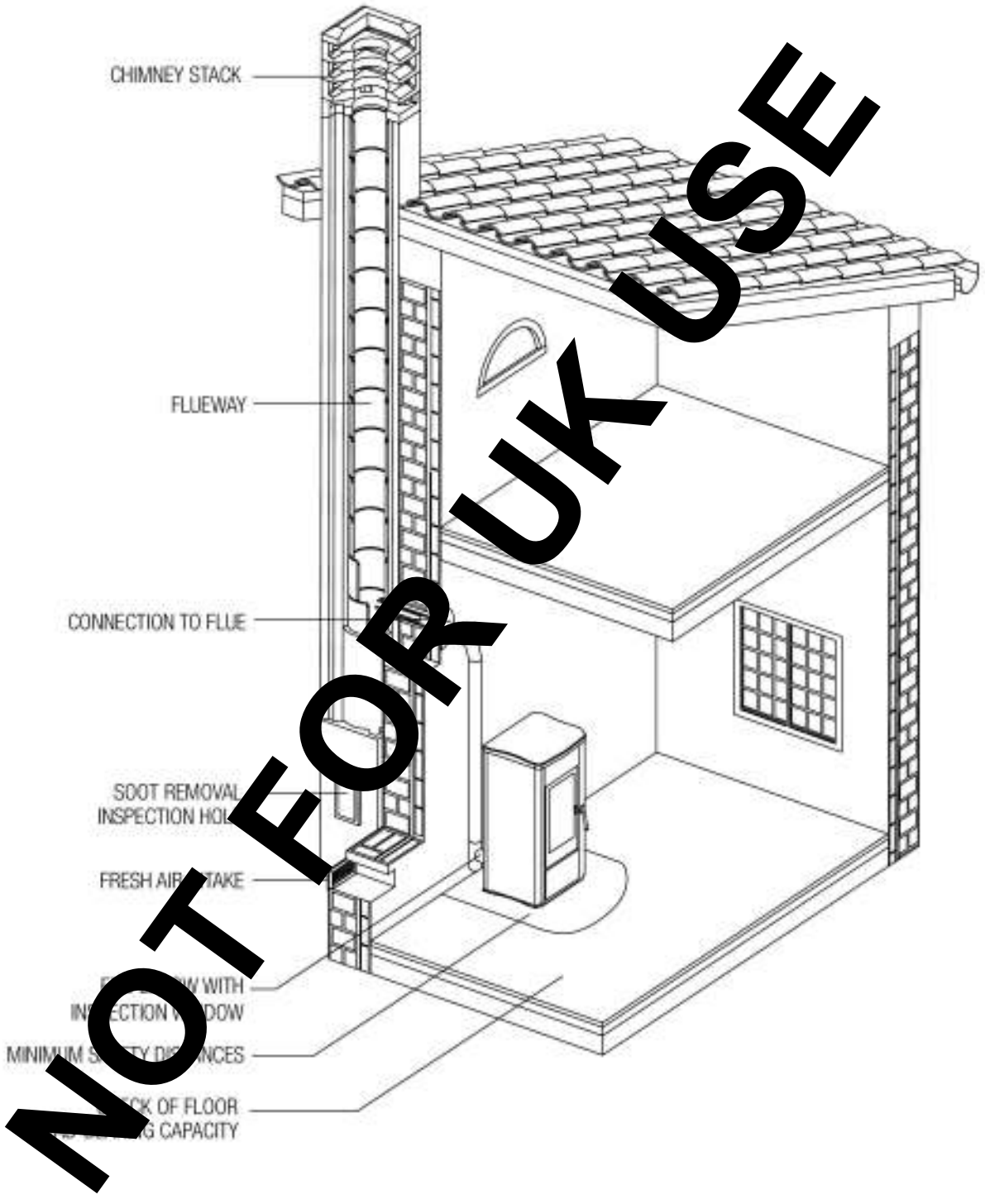
SECTION	TITLE	PAGE
1.0	GENERAL RULES	10
1.1	SINGLE FLUEWAY OR CHIMNEY	11
1.2	SOOT INSPECTION	11
1.3	CHIMNEY STACK	12
1.4	FRESH AIR INTAKE	13
1.5	INSTALLATION ENVIRONMENT	14
1.6	LOAD CAPACITY OF THE FLOOR	14
1.7	HEATING CAPACITY	14
1.8	MINIMUM SAFETY DISTANCES	15
1.9	CONNECTION TO THE FLUE	15
1.10	CONNECTING TO A CONVENTIONAL CHIMNEY	16
1.11	USING AN EXTERNAL FLUE	17
1.12	PREVENTION OF DOMESTIC FIRES	17
2.0	FEATURES AND TECHNICAL DATA	18
2.1	FEATURES	18
2.2	TECHNICAL DATA	19
2.3	FEATURES	20
2.4	ACCESSORIES AND EQUIPMENT	20
2.5	PRODUCT IDENTIFICATION DATA	19
2.6	DIMENSIONS	21
2.7	WIRING DIAGRAM	22
3.0	PREPARING FOR INSTALLATION	23
4.0	INSTALLATION	23
4.1	REMOVING THE CLADDING	23
4.2	WATER CONNECTIONS	24
4.3	WATER PIPE CONNECTIONS	25
4.4	ELECTRICAL CONNECTIONS AND CONTROLS	26
4.5	INSTALLING THE EXTERNAL THERMOSTAT	26
4.6	INSTALLING THE AUX THERMOSTAT	27
4.7	FILLING THE SYSTEM	27
4.8	SIDE FLUE GAS OUTLET (OPTIONAL)	28
5.0	FUEL	30
5.1	LOADING THE PELLETTS	30
6.0	USE	31
6.1	CONTROL PANEL	31
6.2	SETTING THE LANGUAGE	32
6.3	PROGRAMMING	32
6.4	PROGRAMMING THE CLOCK	33
6.5	TIMER	33
6.6	PARAMETERS MENU	36
6.7	BUZZER ENABLE	37
6.8	LIGHTING FOR THE FIRST TIME	37
6.9	LIGHTING AND NORMAL OPERATION	37
6.10	SAFETY DEVICES	41
6.11	STOVE STATUS	43
6.12	OPENING THE DOOR	43
6.13	FROST PROTECTION MODE	44
6.14	DISPOSAL OF ASHES	44
7.0	MAINTENANCE	45
7.1	CLEANING THE GRAT AND GRATE SUPPORT	45
7.2	CLEANING THE ASH TRAY	45
7.3	CLEANING THE FIREBOX	45
7.4	CLEANING THE SMOKE CHAMBER AND BOILER	46
7.5	CLEANING THE FLUE SYSTEM	47
7.6	CLEANING THE CERAMIC CLADDING	47
7.7	CLEANING THE ENAMELLED METAL PARTS	47
7.8	CLEANING THE GLASS (DAILY)	47
7.9	REPLACING THE GLASS	47
7.10	SUTTING DOWN	48
7.11	PROGRAMMING MAINTENANCE	48
8.0	TROUBLESHOOTING	49
8.1	REPLACING THE FUSES	52
	CERTIFICATE OF CONFORMITY	53
	WIRING DIAGRAMS	54
	FLUE PARAMETER SETTING GUIDE	58

1.0 GENERAL RULES

DT20100216-05

Ensure that the installation of your product conforms to all the indications given below.

Fig. 1



NOT FOR UK USE

DT20090321-00

1.1 SINGLE CHIMNEY OR FLUEWAY

DT2010024-02

Every appliance must have a vertical flue pipe operating by natural draught to discharge the combustion gases outdoors.
The flue must:
- comply with regulations in force in the place of installation of the appliance;
- be tight to the products of combustion, waterproof, suitably insulated, made with materials resistant to corrosion by the gases and to stress;
- be connected to just one stove, fireplace or extraction hood (Fig. 2);
- be properly sized, with constant free internal section, equal to or greater than the diameter of the flue pipe of the stove and at least 3.5 m in length (Fig. 2);
- be mainly in a vertical position with a deflection from the axis of no more than 45° (Fig. 2);
- be at a suitable distance from combustible or flammable materials, ensured by an air gap or suitable insulating material;
- be of uniform internal section, preferably round. Square or rectangular sections must have rounded corners with a radius of at least 20mm and a maximum ratio between the sides of 1.5 (Fig. 3-4-5).
- The walls must be smooth if possible and without narrowing. Bends must be regular and without discontinuity (Fig. 6).

It is forbidden to make fixed or mobile apertures on the flue pipe to connect appliances other than the one to which it is already connected.
It is forbidden to pass other air ducts or service pipes inside the flue pipe, however large it is.

If the flue pipe is an incorrect size or installed other than in compliance with the above instructions, the factory cannot be held liable for malfunctioning of the product, damage to property or injury to persons or animals.

Fig. 2

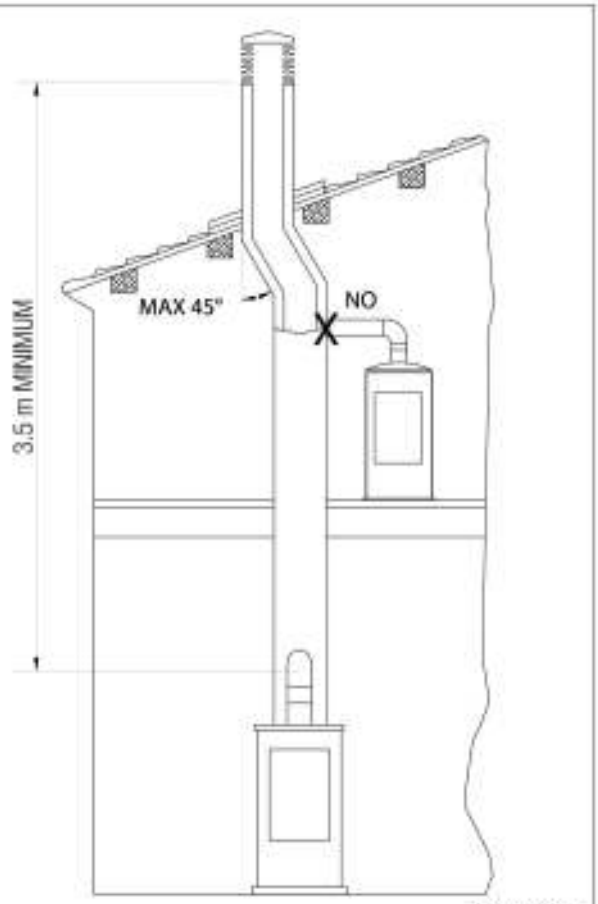


Fig. 3

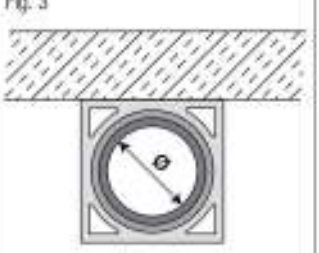


Fig. 4 Deposit of creosote

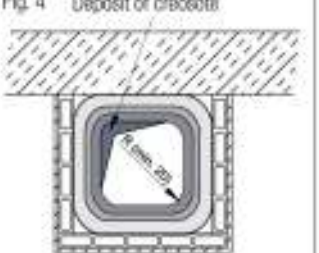


Fig. 5 Deposit of creosote

Fig. 6

1.2 SOOT INSPECTION

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We reccomend that the flue must have a chamber for collecting solid matter and any condensate located below the connection and which may be easily inspected by means of an airtight door. (Fig. 1)

1.3 CHIMNEY STACK

The chimney stack is a device fitted on the top of the chimney that is designed to aid dispersion of the products of combustion in the atmosphere.

The chimney stack must comply with the following requirements:
it must have an internal section and shape the same as the flue (A);
it must have a useful outlet section (B) of not less than twice that of the flue (A);
the part of the chimney that emerges from the roof or remains in contact with the outside (e.g. in the case of a flat roof), must be covered with brick or tile elements and in any case well insulated;
It must be built in such a way as to prevent the penetration of rain, snow and foreign matter into the flue and to ensure that in the event of winds from all directions and angle, discharge of the combustion products is assured (chimney stack with down-draught cowl).

Recommended distances for correct chimney operation.
To ensure trouble-free operation of the chimney and allow correct dilution of the products of combustion in the air, the chimney stack must be installed at the distances given below:
6-8 metres from any buildings or other obstacles that are higher than the chimney stack;
50 centimetres higher than any obstacles located at a distance less than 5 metres;
outside the reflux area. The size and shape of this area differ according to the angle of inclination of the roof and it is therefore necessary to adopt the minimum heights shown below.

Example: Check the slope of the roof (**column α**), and the anticipated distance of the chimney stack from the axis of the ridge (**column A**); if the distance is greater than "**A**" the height of the chimney stack may be read in (**column H**); if the distance is less than "**A**" the chimney stack must rise above the ridge by 0.5 metres.

Fig. 7

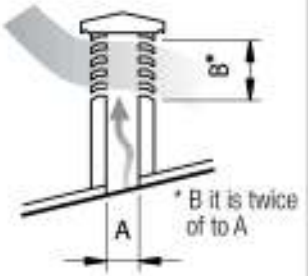

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Fig. 8

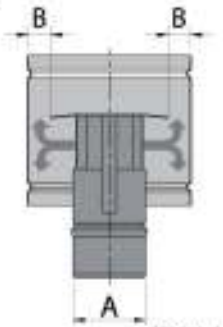

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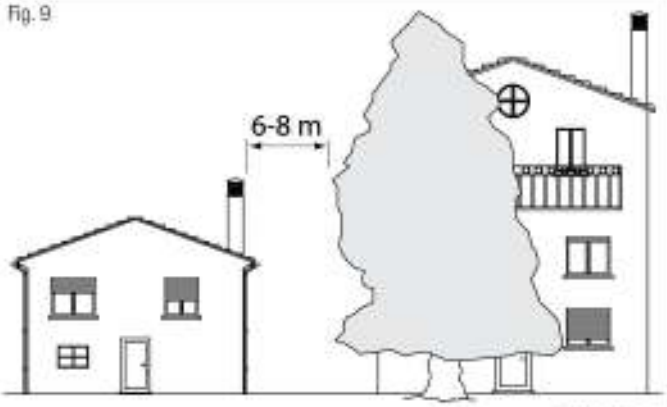
Fig. 9



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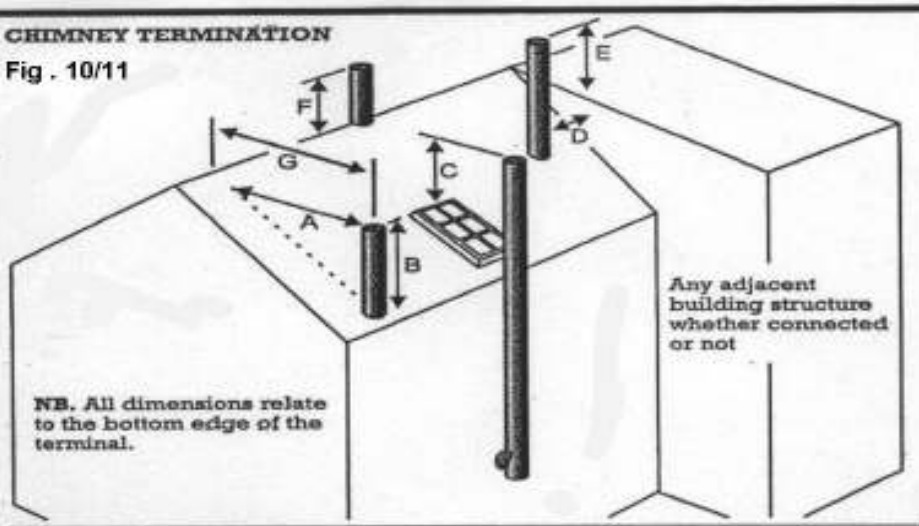
CHIMNEY TERMINATION
Fig . 10/11



The illustration and table identify the minimum requirements as dictated by Building Regulations

Dimension	Minimum distance measured from the top of the chimney construction, excluding any pot or terminal.
A	2.3 metres horizontally clear of the roof surface, eg. if the roof pitch is 45°, then the chimney should project 2.3 metres above it.
B	1 metre, provided A is satisfied, or 600mm above the ridge if G is less than 600mm.
C	1 metre above the top of any flat roof, and the top of any openable roof light, dormer window or ventilator, etc., if it is located within 2.3 metres.
D/E	If D is less than 2.3 metres, E shall be not less than 600mm.
F	600mm above the ridge.
G	Edge of chimney to roof ridge.

1.4 FRESH AIR INTAKE

To ensure trouble-free operation the stove/fireplace must have the necessary air available for combustion and this is provided through the fresh air intake.

The fresh air intake must:
- have a total free cross section at least equal to the size given in the paragraph "**TECHNICAL DATA**";
- be protected by a grille or suitable guard provided it does not reduce the minimum recommended section;
- be in a position whereby it cannot be obstructed.

The airflow necessary for the fire may be obtained in different ways:
- through a fresh air intake direct into the room of installation; (Fig. 12)

- with ducting through pipes direct to the room of installation, increasing the recommended minimum free cross section by at least 15%; (Fig. 13)

- from an adjacent room to the place of installation provided this air flows freely through permanent apertures communicating with the outside. (Fig. 14-15)

⚠ **The adjacent room from which air is taken must not have a low pressure compared to the exterior due to a counter draught caused by the presence in that room of another appliance in use or of a suction device.**
The permanent apertures in the adjacent room must comply with the requirements given above.

⛔ **Combustion air must not be taken from adjacent rooms used as a garage or a combustible materials store or for activities posing a fire hazard.**

Fig. 12

DT2030064-00

Fig. 13

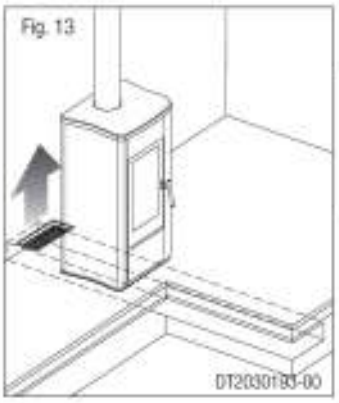


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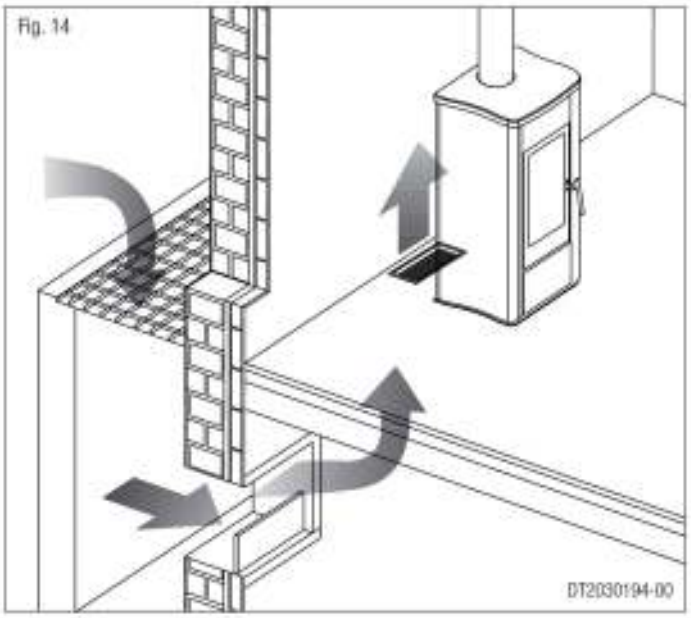
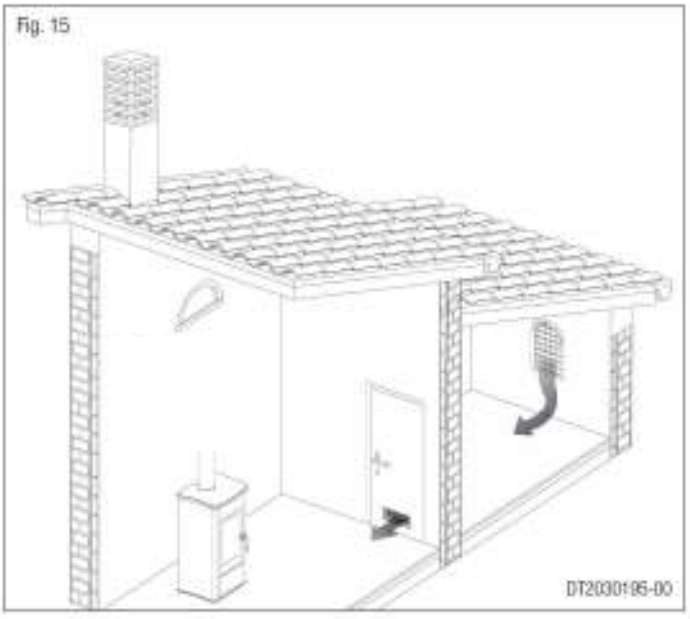
Fig. 14



DT2030194-00

Fig. 15



DT2030195-00

1.5 INSTALLATION ENVIROMENT

DT2010033-01

The appliance should be installed in a location which allows safe and convenient use as well as easy maintenance. If the product being installed requires an electrical socket, the room must also be provided with an earthed power supply in accordance with current regulations. The room where the appliance is to be installed must comply with the following requirements.

⚠ **It can not be used as a garage, store for combustible material or for activities with a risk of fire.**
It can not be in a vacuum in relation to the outside environment due to the effect of contrary draught caused by the presence in the room where the fireplace is installed of another appliance or an extractor device.
Do not use two stoves, a fireplace and a stove, a fireplace and a wood-fired cooking range, etc. in the same environment, since the draught of one could affect the draught of the other.

- Devices suitable for cooking food with relative hoods without an extractor fan may only be used in kitchens.
- Gas appliances of type C are allowed (refer to current legislation and regulations in the place of installation)

⛔ **Gas appliances of type B are not allowed (refer to current legislation and regulations in the place of installation).**
The fireplace must not be used simultaneously with collective type ventilation ducts with or without extractor fan, other devices or other appliances such as: forced ventilation systems or other heating systems using ventilation to change the air. Such systems could cause a vacuum in the environment of installation even if installed in adjoining or communicating rooms.
The fireplace must not be used: in stairwells except in buildings with no more than two apartments; in corridors for common use; in bedrooms; in bathrooms or shower-rooms.

1.6 LOAD-BEARING CAPACITY OF THE FLOOR

DT2010032-00

Check the load-bearing capacity of the floor referring to the weight of the product given in the paragraph "**TECHNICAL DATA**".
If the floor has an unsuitable load-bearing capacity, take adequate countermeasures.

1.7 HEATING CAPACITY

DT2010130-01

Check the heating capacity of the appliance by comparing the rated power given in the paragraph "**TECHNICAL DATA**" with the power required by the environment to be heated.
The energy requirement may be calculated approximately by multiplying the square metres of area by the height of the ceiling; the result is then multiplied by a coefficient, which depends on the degree of insulation of the building, that is, on internal and external factors of the dwelling:
a) **Internal factors:** type of window and door frames, thickness of the insulation and walls, type of building materials, presence of stairwells, walls with extensive glazing, high ceilings, position of the rooms to be heated in relation to other adjacent heated or unheated rooms, ...
b) **External factors:** geographical position, average outdoor temperature, exposure, wind speed, latitude, altitude, ...

Example of approximate calculation of the energy requirement to heat a fixed volume to 18/20° C:

The **coefficient** that is normally **used** is determined according to the real conditions as they occur case by case.
From 0.04 to 0.05 kW per cubic metre in a **well insulated environment**
From 0.05 to 0.06 kW per cubic metre in a poorly insulated environment

3 rooms measuring 20m^2 X (H ceiling) 2.7m = 162 m^3 (volume)
In an environment with a good degree of insulation, an average value (coefficient) of 0.045 kW may be taken
162 (volume) X 0.045 (kW) = 7.3 kW necessary (6300 kcal/h)

Conversion 1kW = 860 kcal/h

⚠ **Consult a heating technician or engineer for a correct check and calculation of the requirement of the environments to be heated (see "REFERENCE STANDARDS").**

1.8 MINIMUM SAFETY DISTANCES

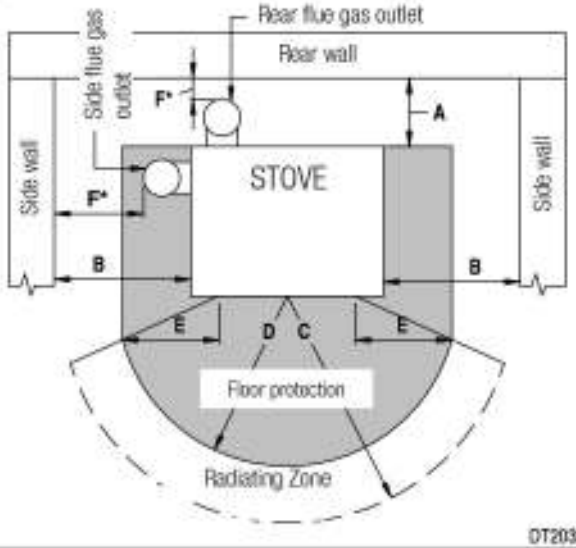
Install the product in compliance with the recommended safety distances from heat sensitive or inflammable materials and not inflammable, from load bearing and other walls and also from wooden elements, furniture, etc. In the case of flooring that is heat sensitive or inflammable the floor must be protected with non-combustible insulating material, e.g. sheets of steel plate, marble, tiles, etc.
The minimum distances are:

A	10 cm from the wall behind the stove
B	20 cm from the side wall
C	80 cm in the heat radiation area and from the hot air fan outlet
D	50 cm floor protection
E	30 cm (measured from the inner edge of the door)
F	5 cm from the flue gas outlet on the rear wall

Connection to the flue must respect minimum safety distances from heat-sensitive structural components or inflammable materials (wood panelling, beams or ceilings, etc) shown in the figures.
* = Values referred to the use of original Superior flue pipes; if other pipes are used, the safety fire regulations or fire codes of reference are applicable.

⚠ **Keep any combustible product such as wooden furniture, curtains, carpets, combustible liquids, etc. well away from the stove when it is lit (minimum distance 80 cm).**
It is recommended that greater distances than those indicated above be left all round the stove to make any necessary work on the appliance easier.

Fig. 16

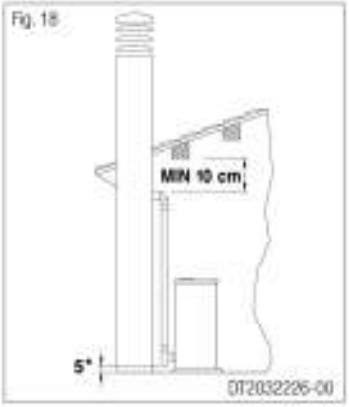


DT2032441-0

Fig. 17

DT2030035-00

Fig. 18



DT2032226-00

1.9 CONNECTION TO THE FLUE

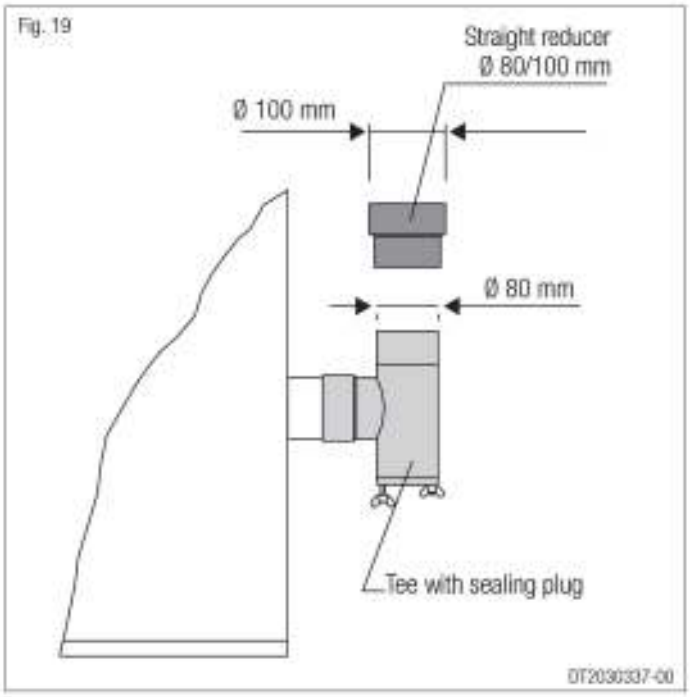
⚠ **The pellet stove is not the same as other stoves. It has a forced draught of flue gas by a fan, which keeps the firebox in a vacuum and the entire flueway slightly pressurised. For this reason the flue must be completely airtight and correctly installed to ensure both trouble-free operation and user safety.**

- The flueway must be made by specialised personnel or firms, as outlined below.
- The flue must be installed in such a way as to guarantee that periodic cleaning can be carried out without dismantling any parts whatsoever.
- Pipes should **always** be sealed with silicone (not cement-based sealants) or specially adapted gaskets/seals, which retain their strength and elasticity at high temperatures (250°C), and should be fixed with 3.9 mm ø self-tapping screws.

⛔ **Do not install dampers or valves that could block the passage of flue gas.**
Do not connect to a flueway into which other appliances (boilers, extractor hoods, etc.) discharge fumes or vapours.

⚠ **Using the relative pipe clips, fix the flue to the wall so that it does not weigh on the smoke fan.**

Fig. 19



DT2030337-00

Pipes and maximum usable lengths

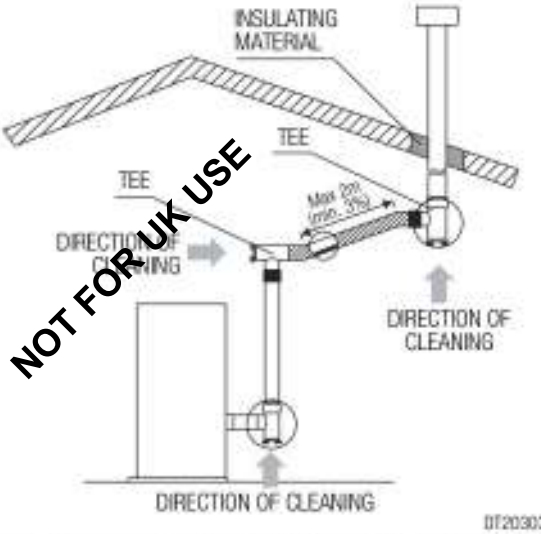
Pipes of painted aluminium-clad steel (minimum thickness 1.5mm), stainless steel (AISI 316) or enamelled steel (minimum thickness 0.5mm) with a nominal diameter of 80 or 100 mm (for pipes which run inside the flue maximum diameter 150 mm) can be used.

The male-female connectors must have a minimum length of 50 mm.

The diameter of the pipes depends on the type of installation. The stove was designed to take 80 mm diameter pipes but, as shown in Table 1, in some cases the use of double-lined 100 mm diameter pipes is recommended.

TABLE 1 – LENGHT PIPES		
TYPE OF INSTALLATION	WITH 80mm DIAMETER PIPE	WITH DOUBLE-WALLED 100mm DIAM. PIPE
Maximum length (with three 90° bends)	4.5 m	8 m
For installations more than 1200m above sea level	-	required
Maximum number of bends	3	4
Length of horizontal sect. w/ minimum 3% gradient	2 m	2 m

Fig. 20



DT2030338-00

⚠ **Losses in pressure associated with a 90° bend can be compared to those incurred by one metre of pipe. An inspectable union-tee can be considered equivalent to a 90° bend.**

EXAMPLE: If installing a section greater than 4.5m in length with 80mm diameter pipe, calculate the maximum usable length in the following ways:
- If a maximum of **three 90° bends** are used, the maximum length of the section will be **4.5m**.
- If a maximum of **two 90° bends** are used and bearing in mind that a 90° bend can be replaced by one metre of pipe, the maximum length of the section will be **4.5m+1m=5.5m**.
- If a maximum of one 90° bend is used and bearing in mind that a 90° bend can be replaced by one metre of pipe, the maximum length of the section will be **4.5m+1m+1m=6.5m.**

Where 100mm diameter pipe must be used, connect it to the stove flue outlet with a 80mm union-tee then use a 80mm 100mm adaptor (not supplied by Superior) (Fig. 19).

Union-tee

The use of this type of fitting must allow for the collection of condensate mixed with soot, which builds up inside the pipe. It must also permit periodic cleaning of the flue without the need to disassemble the pipes. This type of fitting can be bought at Superior retail outlets together with the pipes. An example is given below of a flueway connection, which allows complete cleaning without having to disassemble the pipes (Fig 20).

1.10 CONNECTING TO A CONVENTIONAL CHIMNEY

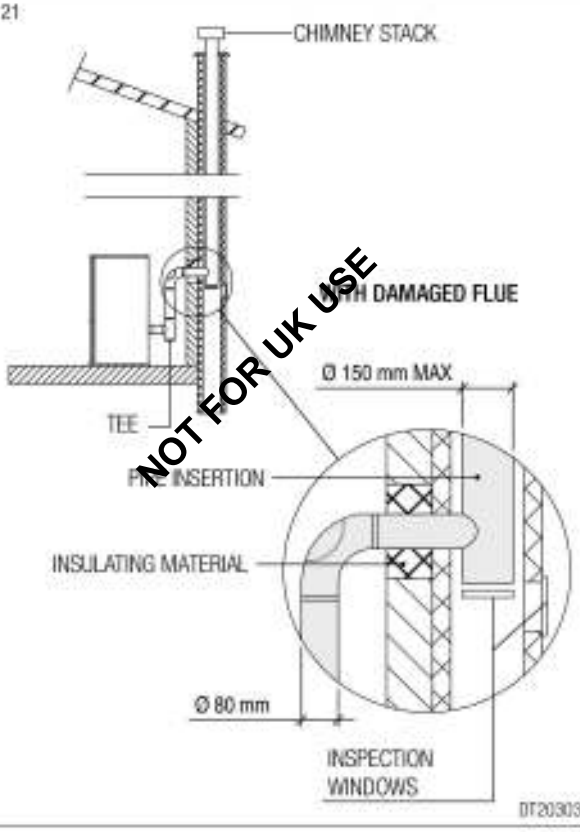
DT2010230-02

If you wish to use an existing chimney it is strongly recommended that you have it checked by a professional chimneysweep to ensure that it is completely airtight. The reason for this is that the smoke, because it is slightly pressurised, can infiltrate any cracks in the flue and escape into living spaces. If upon inspection you find that the chimney is not completely sound, it is recommended that you insert piping made of new material. If the existing chimney is wide enough we recommend a pipe with a maximum diameter of 150mm. It is also recommended that you insulate the chimney flue (Fig. 21 - 22).

Pipes and bends made by the factory are recommended for connection to the flueway, since they are sized to fit the flue outlet of the appliance.

Other pipes may be applied after adaptation and checking of the compatibility of the coupling, taking into account that the pipes and bends must be made in compliance with current regulations. In this case, however, the factory only guarantees trouble-free operation for parts that it manufactures and that are used according to specifications.

Fig. 21



DT2030339-01

- If the connector has to pass through partitions or walls of inflammable or heat-sensitive materials, or through load-bearing walls, create:
an insulating barrier equal to or greater than 10cm around the connector using mineral-based insulating material (rock wool, ceramic fibre) with a nominal density greater than 80kg/m^3.

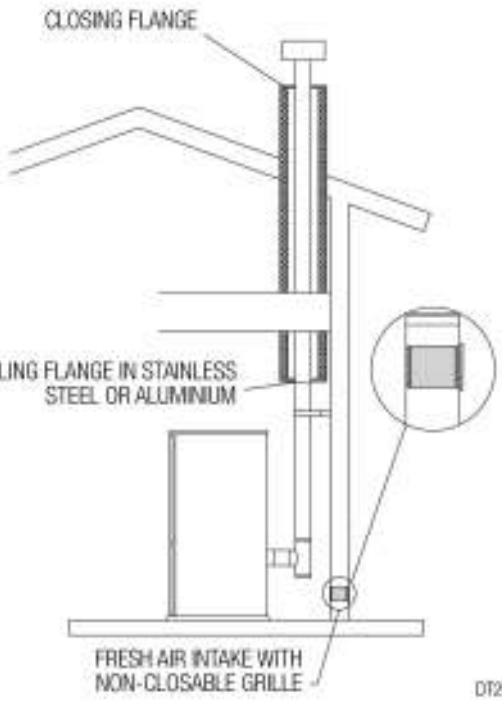
- If the connector has to pass through non-flammable partitions or walls, create: an insulating barrier equal to or greater than 5cm around the connector using mineral-based insulating material (rock wool, ceramic fibre) with a nominal density greater than 80kg/m^3.

- Check that the connection to the flueway is gas/smoke-tight, since the appliance operates in a vacuum.

- Check that the pipe does not penetrate too far into the flueway, thereby choking the pipe for the passage of smoke and combustion gases.

⚠ **Ensure that all installation work is carried out to professional standards.**

Fig. 22



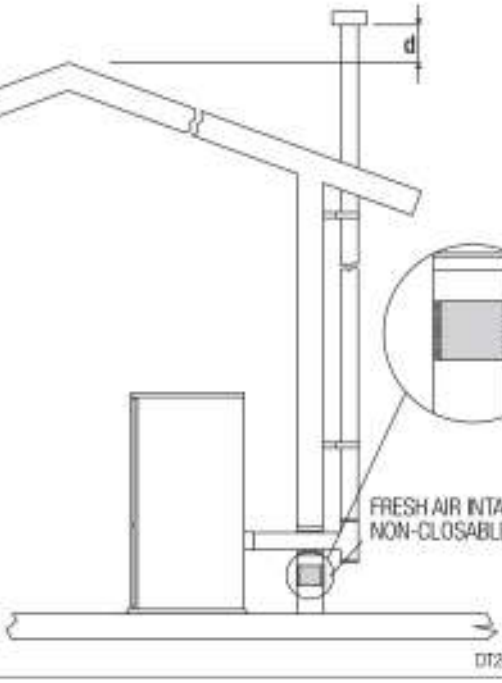
DT2010232-02

1.11 USING AN EXTERNAL FLUE

An external flue can be used provided it complies with the following requirements:
- Use only insulated stainless steel pipes (double-lined) fixed to the outside wall of the building (Fig. 23).
- There must be an inspection opening at the base of the flue to permit periodic checks and maintenance.
- The flue must be fitted at the top with a chimney stack with down-draught cowl, also ensuring compliance with the safety distance from the roof ridge as outlined in the section entitled "**GENERAL RULES**", under "**CHIMNEY STACK**".

⚠ **Ensure that all installation work is carried out to professional standards.**

Fig. 23



DT2010027-02

1.12 PREVENTION OF DOMESTIC FIRES

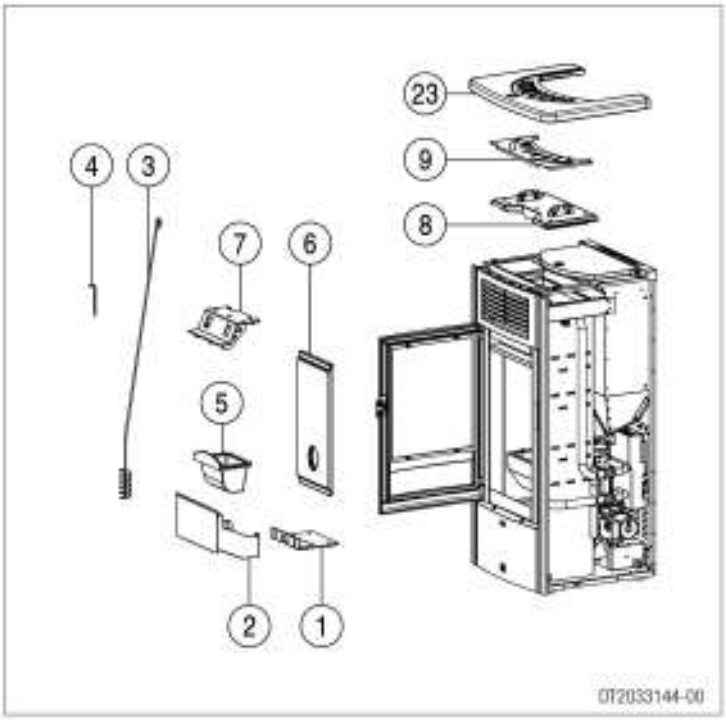
The product must be installed and used in compliance with the manufacturer's instructions and European and national standards as well as local regulations.

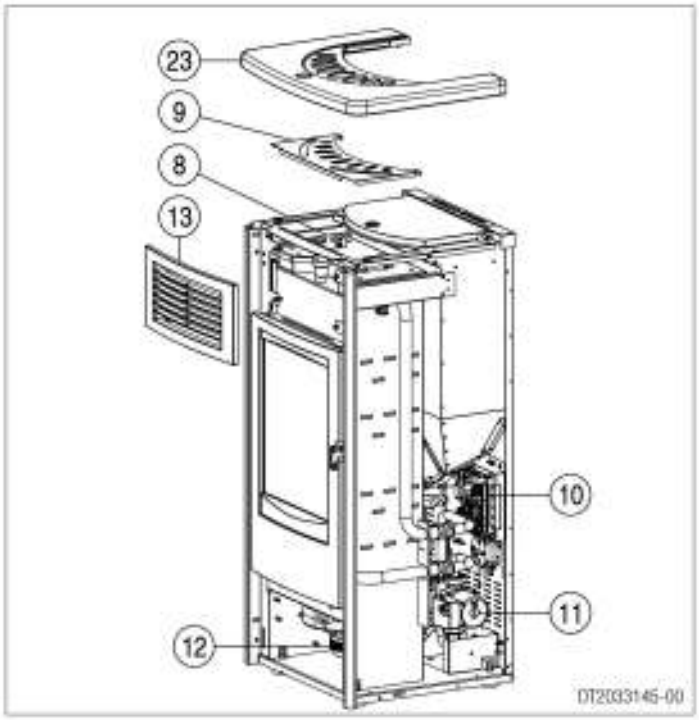
⚠ **When a flue pipe passes through a wall or a ceiling, special installation methods must be applied (protection, thermal insulation, distances from heat-sensitive materials, etc.). See the paragraph "CONNECTION TO THE FLUEWAY".**

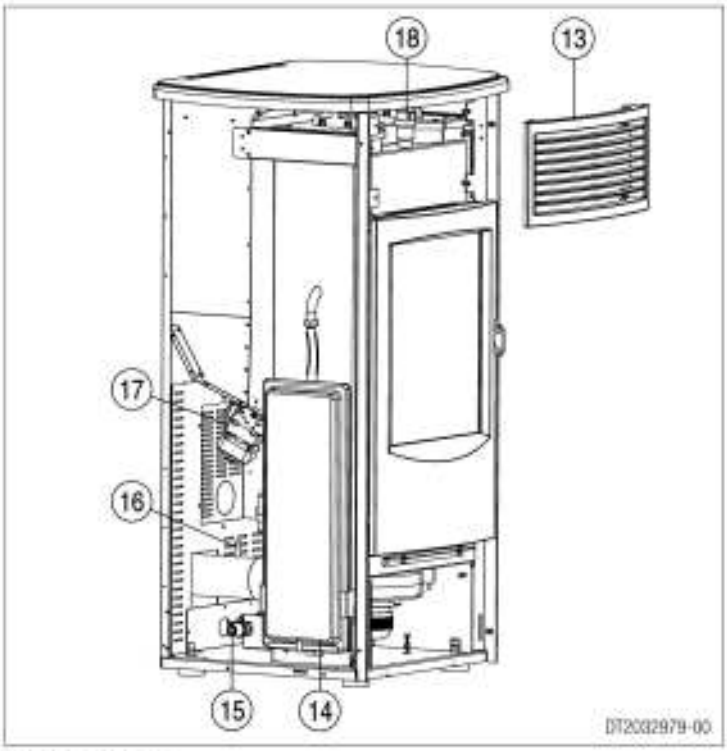
- It is also recommended that all elements made of combustible or inflammable material, such as beams, wooden furniture, curtaining, flammable liquids, etc. be kept outside the heat radiation range of the fireplace and at a distance of at least 80 cm from the heating block.
- For other information, see the paragraph "**MINIMUM SAFETY DISTANCES**" and "**CONNECTION TO THE FLUEWAY**".
- The flue pipe, chimney stack, chimney and fresh air intake must always be free of obstructions, clean and checked periodically, that is, at least twice during the seasonal period from the lighting of the fireplace and during its use. When the fireplace has not been used for some time it is advisable to carry out the checks mentioned above. For further information, consult a chimneysweep.
- Only use recommended fuels (See section "**FUEL**").

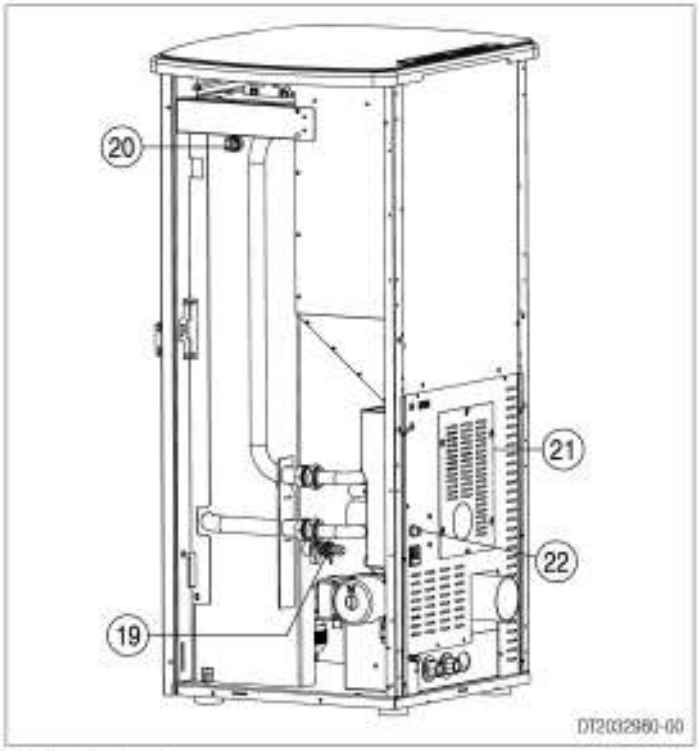
2.1 DESCRIPTION OF THE APPLIANCE

DT2012292-01









N°	Description
1)	Smoke chamber bottom plate
2)	Ash guard
3)	Tube-cleaning tool
4)	Allen wrench
5)	Grate
6)	Back panel
7)	Enamelled smoke baffle plate
8)	Top plate
9)	Top grille
10)	Electronic control board
11)	Circulator

N°	Description
12)	Smoke extractor fan
13)	Frontal grille
14)	Expansion tank
15)	Relief valve
16)	Smoke sensor
17)	Gearmotor
18)	Air valve
19)	Drain tap
20)	Electronic sensor / safety thermostat bulb holder
21)	Gearmotor inspection panel
22)	Boiler safety thermostat
23)	Top surround

2.2 TECHNICAL DATA

	U.M.	SAMANTA THERMO 11	
		at rated power	at minimum power
Thermal power	kW	15,5	6,5
Thermal power of fluid (water)	kW	12,5	5,0
Hourly fuel consumption	kg/h	3,5	1,5
Efficiency	%	90,5	92,0
CO content (with 13% O_2)	%	0,020	0,030
Maximum power rating	W	410	
Electrical power supply	W	130	
Alimentazione	V	230	
Frequency / Frequency only for Japan	Hz	50 / 60	
Fuel tank capacity	kg / (l)	30 / (48)	
Expansion tank capacity	l	6	
Boiler capacity	l	23,5	
Domestic hot water production with $\Delta T = 30$ °C	l / min	-	
Working pressure / Maximum working pressure (Peak)	bar	1,5 / 3	
Expansion tank pre-filling pressure	bar	2	
Heating circuit water temperature control (max / min)	°C	75 / 60	
Exhaust outlet diameter	cm	ø 8	
Fresh air intake with minimum useful section	cm^2	100	
Weight with cladding	kg	185	
Packing sizes (DxWxH)	cm	68x79x136	

Data obtained under laboratory conditions with pellet calorific value of 5 kWh/kg.

N.B. The above data may vary according to the characteristics of the pellets being used. (See section "FUEL")

Technical data for flue calculations	U.M.	SAMANTA THERMO 11	
		at rated power	at minimum power
Thermal power	kW	15,5	6,5
Smoke flow rate	g/s	12,1	7,2
Average temp. of smoke at exhaust outlet	°C	143,6	91,2
Minimum draught	Pa	12	

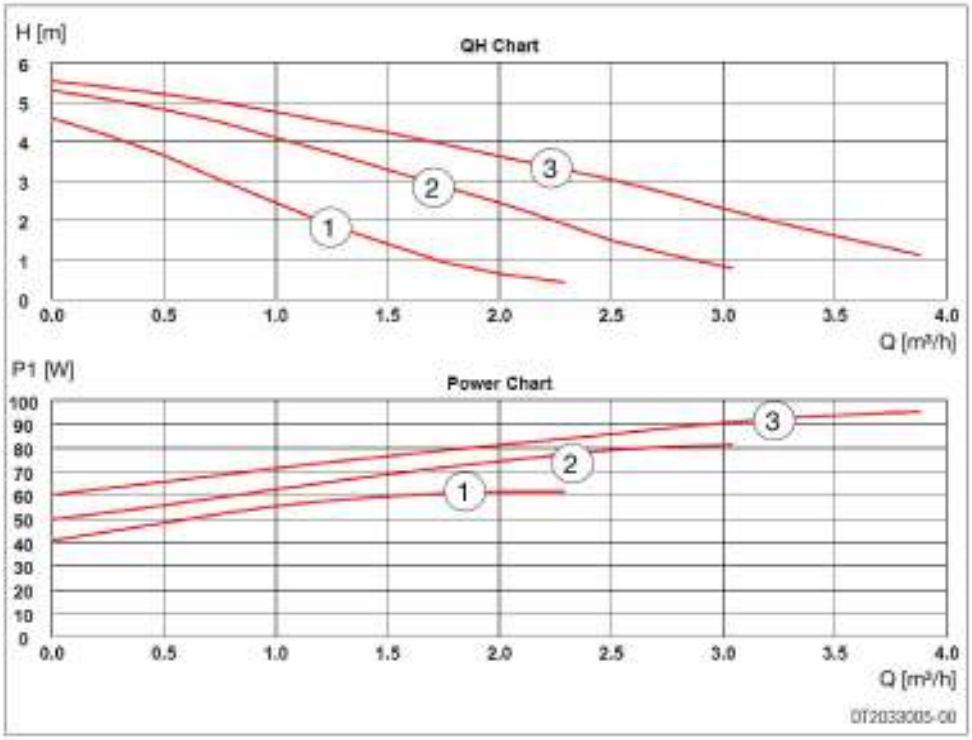
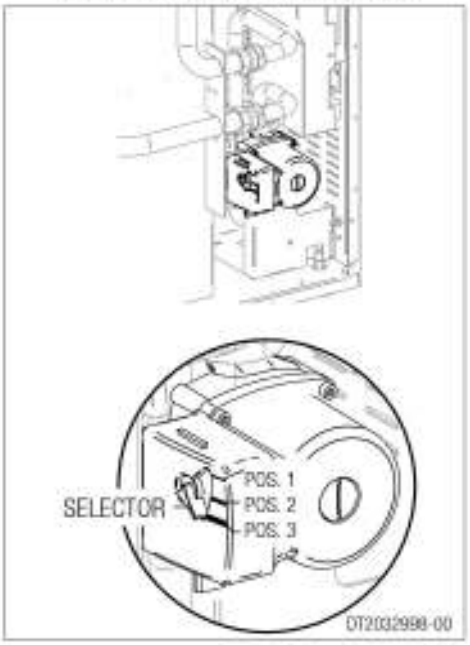


Diagram of circulator head.

Characteristic curves of the 3 speeds that can be selected directly on the circulator.



2.3 FEATURES

DT2012292-01

Cladding: ..... enamelled steel with majolica's top-plate
Interior: ..... steel
Baffle plate and hearth: ..... cast iron
Grate: ..... cast iron
Door: ..... cast iron with ceramic glass heat resistant up to 750°C
Handle: ..... enamelled steel
Control panel: ..... display with digital controls
Timer thermostat: ..... standard with daily, weekly and weekend programming modes divided into two time bands
Automatic power control: ..... from 1 to 5 and Set water temperature
Manual power control: ..... only Set water temperature
Ash guard: ..... removable
Fuel: ..... natural pure wood pellets (see "**FUEL**" section)
Heating: ..... heat exchange to the water with temperature control in the boiler.

2.4 ACCESSORIES AND EQUIPMENT

DT2012293-00

Description	
Cable L=200 Schuko IEC	provided
Allen wrench	provided
Pellet stove door handle tool	provided
Tube-cleaning toll for boiler	provided
Grey silicone paint spray can	optional
Side flue gas outlet kit	optional
Water connections kit	optional
Pipes and elbows for connection to the flueway	optional
Floor protection	optional

2.5 PRODUCT IDENTIFICATION DATA

DT2011541-00

Every product is identified by a rating plate showing the model and the performance of the appliance as well as a plate giving the serial number.
The rating plate is located on the rear panel of the stove, while the plate with the serial number is located on the underside of the hopper lid.
A label bearing the serial number is also applied on the cover last page of the "Installation, operation and maintenance" booklet.
Always give the information shown on these plates to the dealer or the Service Centre when requesting service or spare parts.

Fig. 24

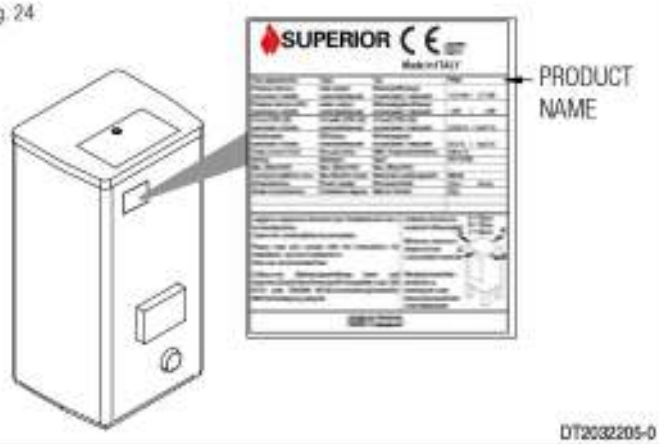
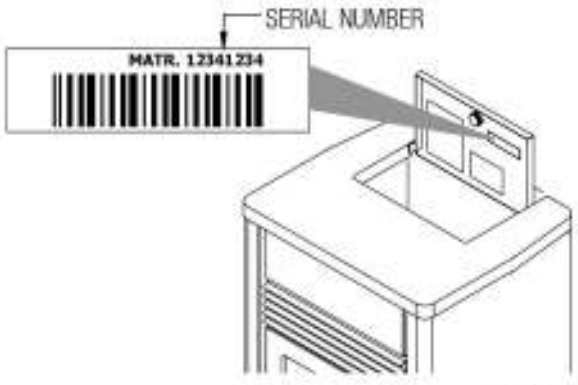
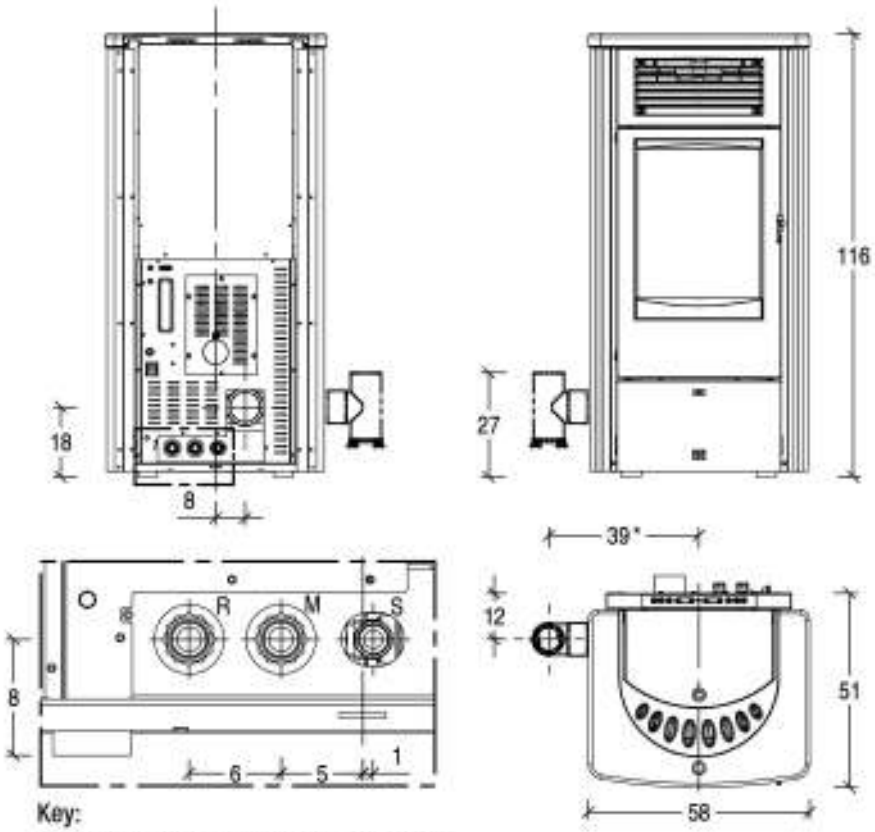


Fig. 25



2.6 DIMENSIONS

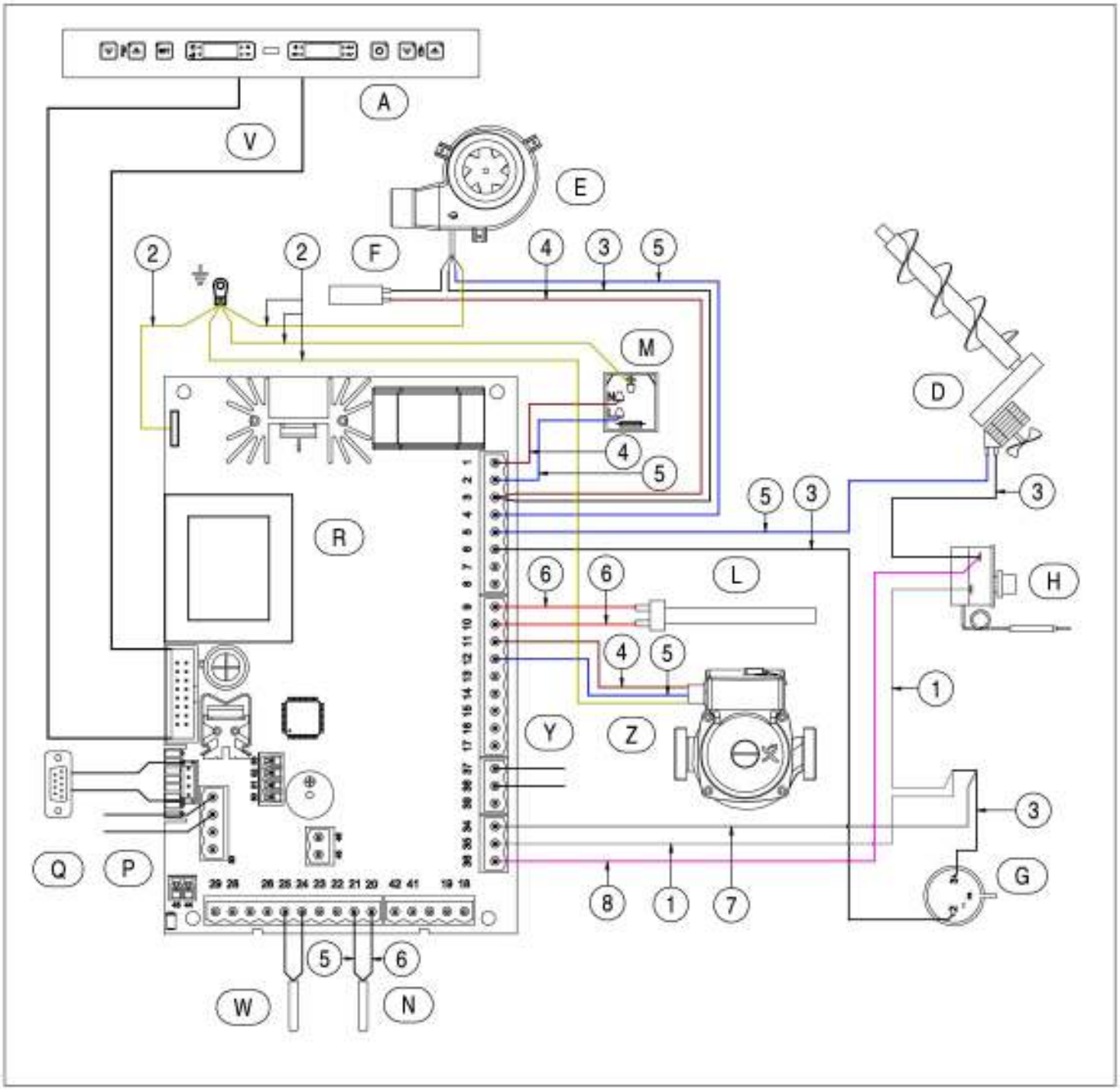


Key:
S = temperature/pressure relief valve F 1/2"
R = system return M 3/4"
M = system delivery M 3/4"

Measurements in cm.
* Minimum measurement for the side flue gas outlet (optional).

2.7 WIRING DIAGRAM

English



POS.	KEY TO PARTS	POS.	KEY TO PARTS	NO.	KEY TO COLOURS
A	Control display	N	Smoke sensor	1	White
B	-	O	-	2	Yellow-green
C	-	P	External thermostat	3	Black
D	Pellet-loading auger	Q	Serial port DB9	4	Brown
E	Flue gas fan	R	Motherboard	5	Blue
F	Capacitor	S	-	6	Red
G	N.O. Pressure switch (normally open)	T	-	7	Grey
H	N.C. 80° thermostat (normally closed)	U	-	8	Violet
I	-	V	Flat cable		
J	-	X	-		
K	-	Y	Thermostat AUX (230 V)		
L	Igniter plug	W	Water sensor		
M	Power supply with fuse (5X20 4AH250V)	Z	Circulation pump		

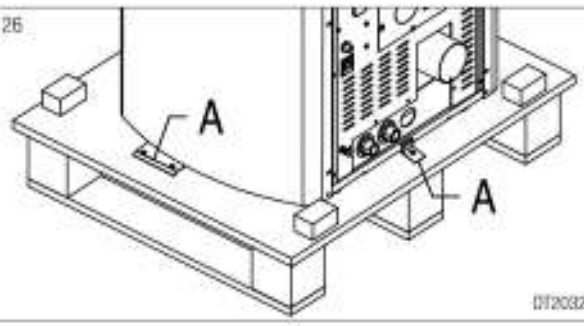
3.0 PREPARING FOR INSTALLATION

DT2011692-00

To prevent accidents or damage to the product we recommend the following:
- unpacking and installation must be carried out by at least two people;
the product must always be moved and handled with suitable equipment in - full compliance with current safety regulations;
- the packaged product must be kept in the position according to the directions shown by the diagrams and notices on the pack;
- if ropes, straps or chains are used, ensure that they are able to take the weight of the pack and that they are in good condition;
- use slow continuous movements when moving the pack to avoid jerking the ropes, chains, etc.;
- do not tilt the package excessively to avoid toppling;
- never stand in the vicinity of loading/unloading equipment (forklift trucks, cranes, etc.). Before proceeding with installation, remove the securing brackets (A) having removed the relative fastening screws. (Fig. 26)
Having placed the appliance in its final location, using the allen wrench provided in the kit, remove the screw securing the smoke baffle plate (Fig. 27). This fastening screw must be removed before the stove is lit for the first time.

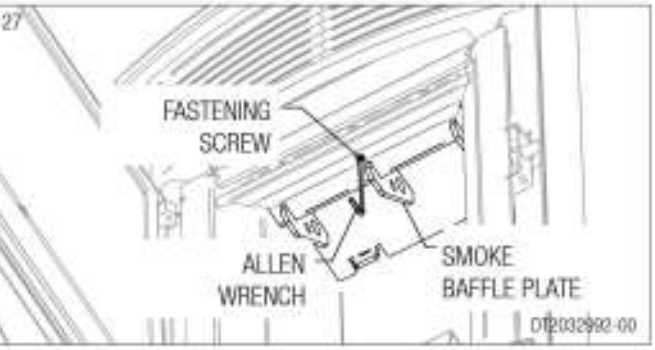
⚠ **Unpack the product being careful not to damage or scratch it, take the accessories kit and any pieces of polystyrene or cardboard used to wedge moveable parts etc. out of the stove.**
Keep packaging (plastic bags, polystyrene, etc.) out of reach of children, since it could be a potential source of danger, and dispose of according to local regulations.
To make moving and handling of the stove easier for installation purposes, it is advisable to remove the cladding in accordance with the procedure described in the paragraph "REMOVING THE CLADDING" and then refit it upon completion of installation.
If you decide to install the stove without removing the cladding, take great care not to buckle, scratch or in any way damage the bottom of the side panels and the lower front panel.

Fig. 26



DT2032956-00

Fig. 27



DT2032992-00

4.0 INSTALLATION

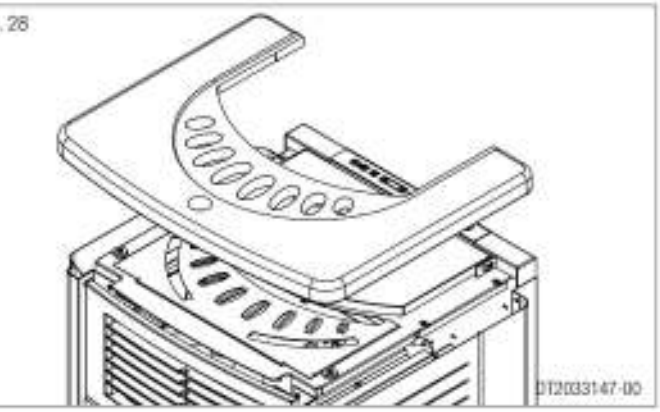
DT2012213-00

Pursuant to current regulations on the safety of electrical equipment, you must contact a Superior After-Sales Service Centre or a qualified electrician for all and any work connected with installation, maintenance or servicing that involves access to electrical parts.

Cladding
Having completed assembly of the stove and installed any external room thermostat and finally fit the ceramic panel into the top. Fit correctly the ceramic panel on the top seats present on the stove structure. (Fig. 28)
Check that the side panel is level and if necessary use the fibreglass tape provided in the kit to adjust.

DT2011921-01

Fig. 28



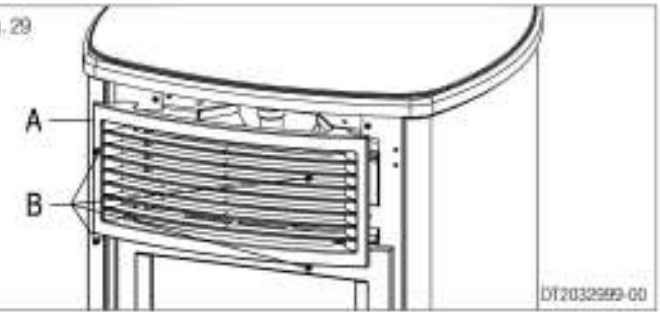
DT2033147-00

4.1 REMOVING THE CLADDING

DT2011691-00

If work has to be carried out inside the cladding, the side panels must be removed as follows:
- remove the upper grille [A] after unscrewing the 4 fastening screws [B]. (Fig. 29)

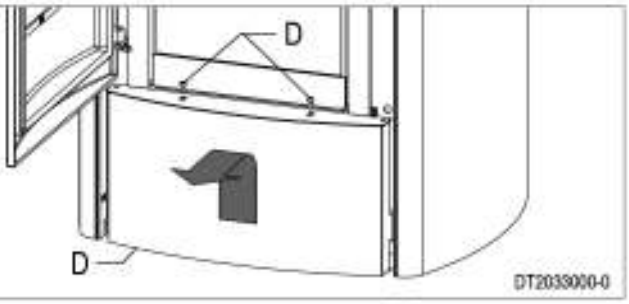
Fig. 29



DT2032999-00

- Remove the 2 screws [C] that secure the lower front panel [D], lift it slightly and then pull it outwards to remove. (Fig. 30)

Fig. 30



- Remove the side panel after unscrewing the 2 front screws [E] (Fig. 31) and loosen the rear screws [F] that secure it. (Fig. 32)

- Follow the same procedure for the other side.

- Refit the cladding by repeating the above steps in the reverse order.

Fig. 31

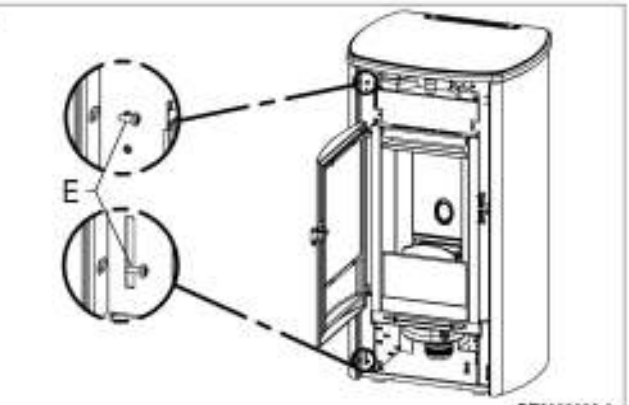
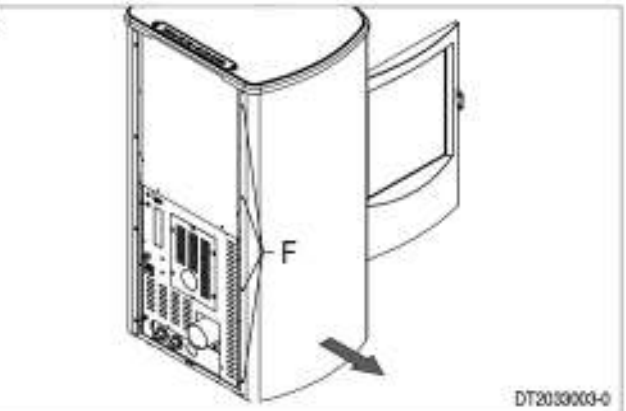


Fig. 32



4.2 WATER CONNECTIONS

DT2012103-01

Heating version.

This appliance has been designed to heat not only the immediate surrounding environment, but also water for a hot-water type heating system.
When the appliance is operating regularly it produces hot water at a temperature that is necessarily below boiling point and a heating system must therefore be designed that is suited to the characteristics of the appliance.

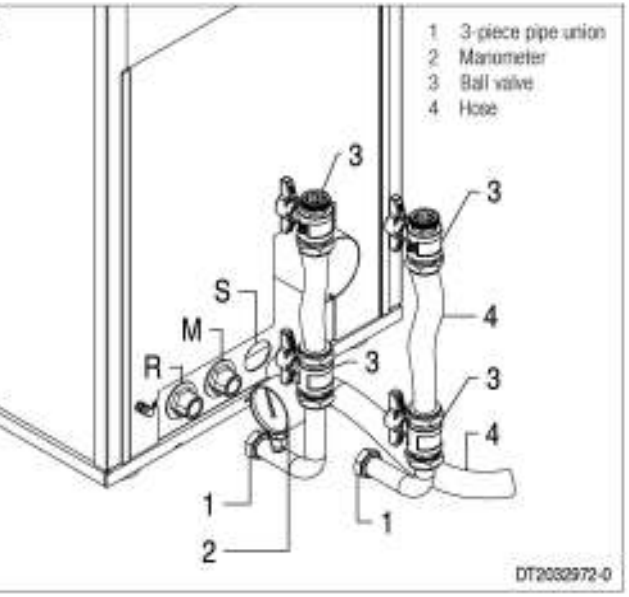
⚠ **A qualified heating plumber must be called in to:**
- check an existing installation;
- design, install and check a new installation.

The water heating system must be sized in relation to the average power of the appliance and the heating requirements of the building (see "TECHNICAL DATA").

The fittings for connecting the appliance to the plumbing system are to be found at the rear.

Connections:
- Connect the appliance to the heating plumbing system "R"-"M" using pipe unions and stop valves to facilitate any future maintenance or draining of the heating system.
- Connect the temperature/pressure relief valve "S" of the appliance to a suitable drip funnel without shut-off valves. (Fig. 33)
Should the temperature/pressure relief valve activate, the water must be free to flow away without causing injury to persons or damage to property.

Fig. 33



⚠ Installing shut-off valves on the inlet and the outlet enable maintenance to be carried out without having to drain the system; it is advisable to install the water connection kit, but in any case installation must be carried out as shown in the diagram. (Fig. 34)

⚠ Drain taps inserted in the lowest points of the system make it easier to drain the system if necessary.

Air valves installed at all the highest points of the system make it easier to bleed the heating system.

Do not install thermostats on all the heaters (radiators) of the heating system so that at least the minimum output of the appliance can be dissipated.

⚠ Use sections of hose to connect the appliance so that it can be moved slightly (check that any kinks in the hose do not allow air pockets to form).

Install a manometer near the appliance delivery or return fittings to check the working pressure of the system (or install the optional water connection kit).

Connect the appliance pressure/temperature relief valve to a suitable drip funnel to take away water at high pressure and temperature.

Avoid any narrowing in the diameter of the pipework.

Avoid using elbows or bends with a small radius.

Provide adequate supports for the water pipes so that they do not weigh on the fittings of the unit.

Before connecting the appliance, flush the heating system through to eliminate any residues (oil, swarf, drops of weld material, hemp, rust) inside the pipework, which could otherwise damage the appliance or cause malfunction.

Insulate the connecting pipework adequately to prevent heat loss and the formation of condensation.

Under no circumstances light the appliance unless the water circuit is completely filled with water.

The expansion tank installed inside the appliance, with capacity and pre-filling pressure indicated on the rating plate, is only sufficient to compensate the water in the appliance and up to a MAX. of 16.5 l of water in the system; the part of the system corresponding to this quantity must be near the appliance and run relatively straight.

Installation of a suitably sized additional expansion tank is however recommended to compensate for the quantity of water present in the heating system.
The correct size of the expansion tank must be calculated by a qualified heating plumber according to the characteristics of the heating system.

Purely by way of example, the design calculations for an expansion
tank are given below, taking into consideration the following:
- cold temperature of fluid 15°C;
- maximum working temperature of fluid 90°C;
- difference in level between additional expansion tank and relief valve (3 bar) equal to or less than 1.5 m;
- pre-filling pressure of the expansion tank 2 bar.

The capacity of the closed expansion tank required by a heating system with such characteristics can be calculated with the following formula:

$$V_v = V_0 \times 0.16$$

V_v= volume of the expansion tank in l
V_0= water content of the system in l

4.3 WATER PIPE CONNECTIONS

DT2012107-01

The installer must connect the appliance to the water system as shown in the diagram in figure 34.

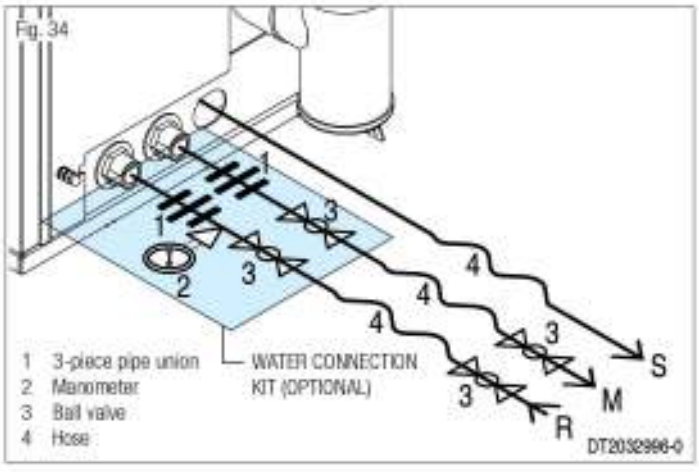
This set-up allows:
• an instant check of filling or operating pressure of the system (MANOMETER WITH SCALE 0 ÷ 6 BAR);
• the stove to be moved slightly for maintenance or cleaning purposes, without disconnecting it from the water system (HOSES);
• the stove to be disconnected from the water system without having to empty either the stove boiler or the actual system (BALL VALVES);
• the appliance to be disconnected quickly without subjecting the connecting pipes to stress (3-PIECE PIPE UNION).

The safety valve must be connected using a hose without shut-off devices, which could obstruct the free flow of fluid under pressure.

Check that any kinks in the hoses will not allow air locks or pockets to form or obstruct the free flow of water.

The appliance must be fitted with a water connection kit (OPTIONAL), which includes shut-off valves on the appliance side and a manometer to be applied to the delivery and return fittings.

Fig. 34



1 3-piece pipe union
2 Manometer
3 Ball valve
4 Hose

4.4 ELECTRICAL CONNECTION AND CONTROLS

Power cable (6).

• The stove/fireplace comes with a power cable which must be connected to a 230V/50Hz mains socket. Connection to the rear of the stove/fireplace is shown in fig. 36.

• The power rating is indicated in the paragraph "**TECHNICAL DATA**".

⚠ **The appliance must be connected to an efficient earthing/ grounding system.**
Ensure that in its normal position the power cable does not come into contact with any heated parts.
Ensure that the electrical plug is accessible also after installation of the stove.

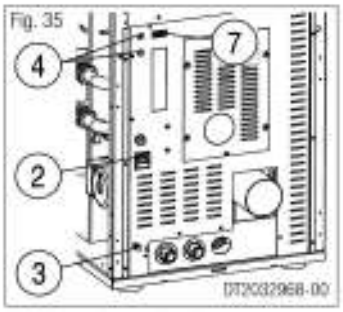
Pipe tap (3).

• The appliance has an external socket for measuring the pressure (vacuum) of the flue gas outlet pipe. This control and verification should be carried out by authorised personnel at the time of installation or during maintenance.

Connection to the DB9 serial socket (7)

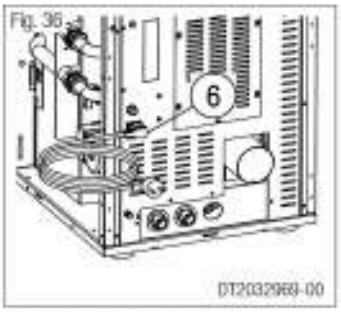
• The appliance has a DB9 serial socket, which is used to check appliance operation. Controls should be carried out by authorised personnel at the time of installation or during maintenance.

Fig. 35



2 Socket for power lead.
3 External pressure pipe tap.

Fig. 36



4 Knockout for inserting cable gland PG7 for connection of external thermostat.
6 Power cable connection.
7 DB9 serial socket

4.5 INSTALLING THE EXTERNAL THERMOSTAT

The room thermostat has the function of determining appliance operation according to the temperature read by the actual thermostat.
If the temperature of the room in which the thermostat is installed is lower than that set on the thermostat, the appliance will change operation until either the minimum power is reached or stand-by status, depending on the preset option.

The appliance is designed for connection to an external room thermostat (NOT SUPPLIED). To connect an external thermostat use a 2x0.5mm2 cable, clamped with a PG7 cable gland inserted in the appropriate hole in the rear panel (Fig. 32).

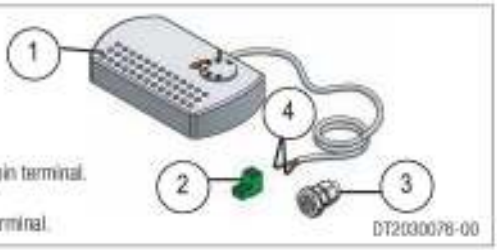
This operation must be carried out by authorised personnel.

⚠ **Installation can be carried out with any type of room thermostat but requires a PG7 cable gland similar to the one shown in fig 37. To connect the thermostat to the electronic board, see the wiring diagram.**

To install, proceed as follows:
- Cut off the electricity to the appliance;
- Remove the right side panel (see the paragraph "**REMOVING THE CLADDING**");
- Remove the knockout to be found in the rear panel (position 4 – Fig. 40);
- Clamp the thermostat cable with the PG7 cable gland and insert the gland into the hole in the rear panel (Fig. 38);
- Connect the thermostat terminal to the two-pin terminal of the electronic board (see the paragraph "**WIRING DIAGRAM**"). (Fig. 39)
- Refit the panel, proceeding in the reverse order to removal.
- check that the cable cannot come into contact with hot parts during appliance operation.

⚠ **Take care because this is a "free" contact, with zero potential, and therefore no live element should be connected.**
Room thermostats, boiler or storage tank thermostats, free contacts from control units or solar systems etc. can be connected.

Fig. 37



1 Thermostat.
2 Electronic board 2-pin terminal.
3 Cable gland.
4 Thermostat cable terminal.

Fig. 38

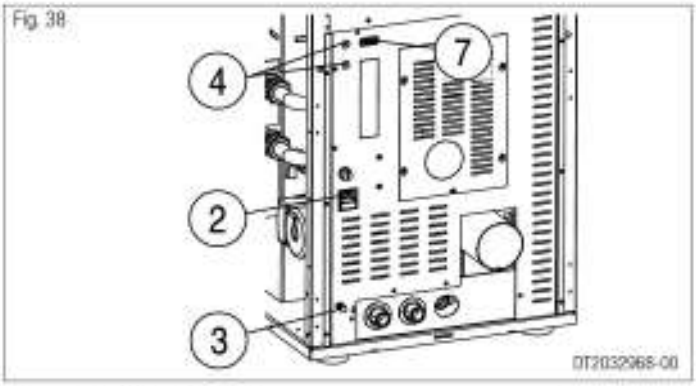


Fig. 39

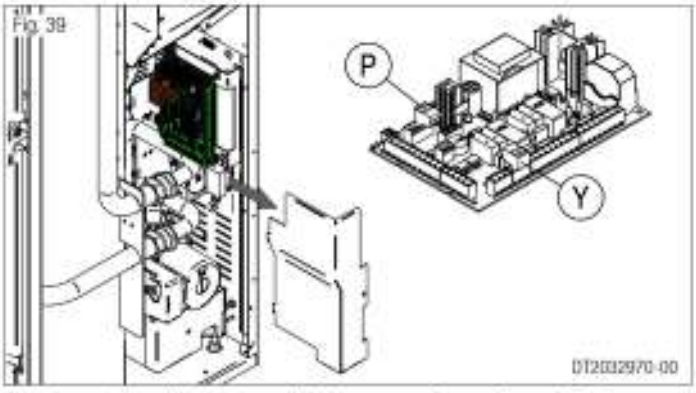
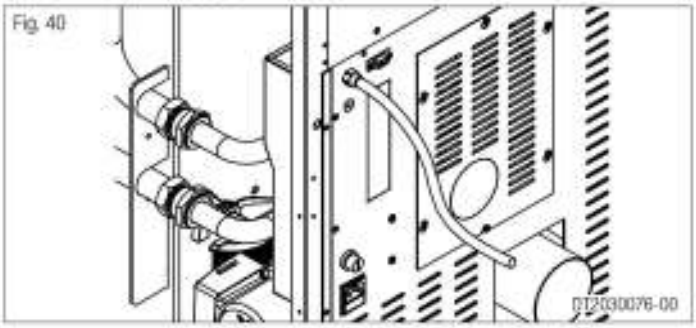


Fig. 40



4.6 INSTALLING THE AUX THERMOSTAT

DT2012106-01

The AUX thermostat activates an output from the electronic control board at 230 V when a certain settable SET temperature is reached (see "**USE**").
If the temperature of the water in the boiler read by the electronic sensor is higher than the AUX THERMOSTAT SET point temperature, the ends of the cable connected to the Y terminal will be powered at 230 V.
Ensure that connection is made to installations with continuous current absorption of no more than 1A.
Connect the AUX thermostat using a 2x1 mm² cable secured with a PG7 cable gland, to be inserted in the hole (4) made in the rear panel of the appliance (Fig. 37).

⚠ **The AUX thermostat operates at 230 V, so take all due precautions when installing.**
- Installation must be carried out by authorised personnel.
- To connect the AUX thermostat to the electronic control board, see the wiring diagram.

To install, proceed as follows:
- disconnect from the electricity supply;
- remove the right side panel (see "**REMOVING THE CLADDING**");
- remove the knockout to be found in the rear panel (pos. 4 - Fig. 37);
- insert the thermostat cable into the cable gland PG7 and then insert the gland into the hole that has just been made in the rear panel (Fig. 37);
- connect the cable terminal of the auxiliary device to the 2-PIN terminal of the electronic control board, see "**WIRING DIAGRAM**";
- refit the panel, following the above steps in the reverse order;
- check that the cable cannot come into contact with hot parts during appliance operation.

4.7 FILLING THE SYSTEM

DT2012108-01

⚠ **Fill the water heating system when the appliance is shut down.**

⚠ **Under no circumstances light the appliance if the boiler is not full of water.**

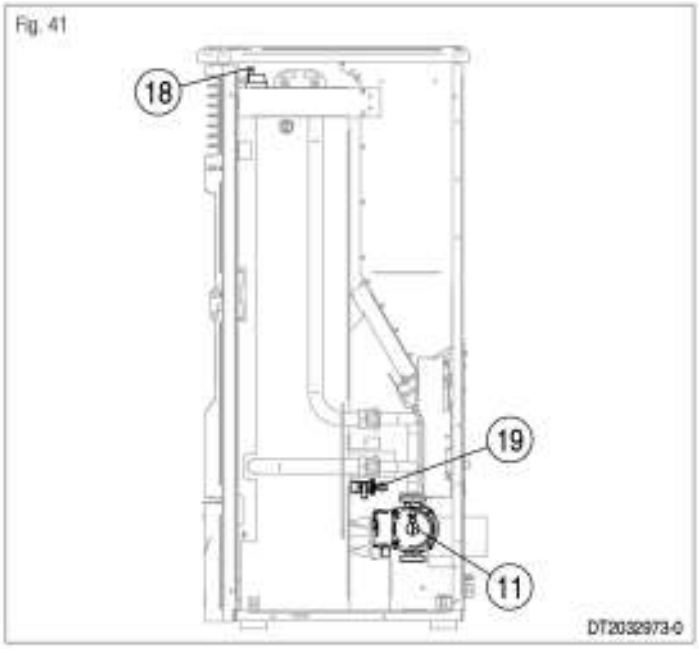
Filling the system:
- open the air valves of the radiators;
- loosen the screw (18) of the automatic air or bleeder valve of the appliance and leave it loose (Fig. 41);
- ensure that the drain tap (19) of the boiler is closed;
- open the ball valves installed on the appliance "R" - "M" fittings;
- open the shut-off devices in the system;
- gradually open the relative tap located on the water heating system to fill with water from the mains supply;
- bleed the system through the air valves installed in the system, on the radiators and in the appliance, checking that they are working properly;
- close the radiator air valves as soon as water starts to come out (the screw of the automatic air valve of the appliance must remain loosened);
- bring the installation up to working pressure, checking the value on the manometer installed on the exterior of the appliance (see "**TECHNICAL DATA**" and "**WATER PIPE CONNECTIONS**");
- close the mains water filling tap;
- check the joints for leaks and that the water heating system pressure is stable;
- bleed the circulator (11) using the relative central screw (Fig. 41).

- After some hours of working check if the water pressure value is correct and if necessary refill the system to restore the correct pressure.

Characteristics of the mains water supply.
- The pressure of the mains water supply to the heating system must be between 1 - 2 bar (in the case of higher pressure, install a pressure reducer).
- The hardness of the supply water affects heat exchanger operation.

In the case of excessive hardness (above 20°f) install a water-softening device between the mains outlet and the appliance.
Every municipality provides water analyses free of charge.

Fig. 41



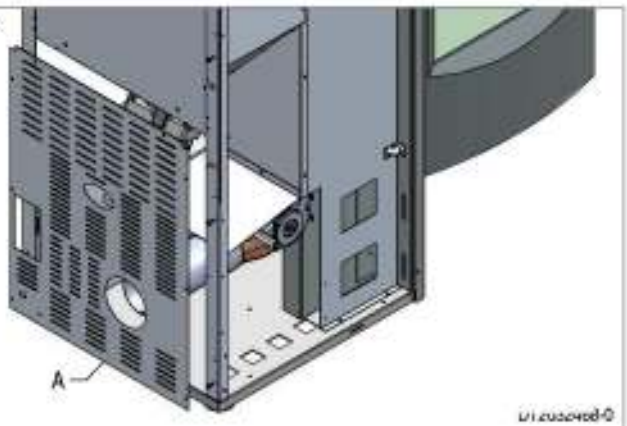
Combination with another heat source:
- In the case of combination with another heating appliance, for example a gas-fired wall boiler, to work in all safety it is advisable to separate the circuits by installing a storage tank and a water cut-off device (see the typical water circuit arrangement with auxiliary wallmounted boiler).

4.8 SIDE FLUE GAS OUTLET (OPTIONAL)

The product is supplied with the flue gas outlet at the rear.
By purchasing the relative kit it is, however, possible to have an outlet on the left side of the stove. Proceed as follows to install the kit:
- remove the left side panel (see the paragraph **REMOVING THE CLADDING**).

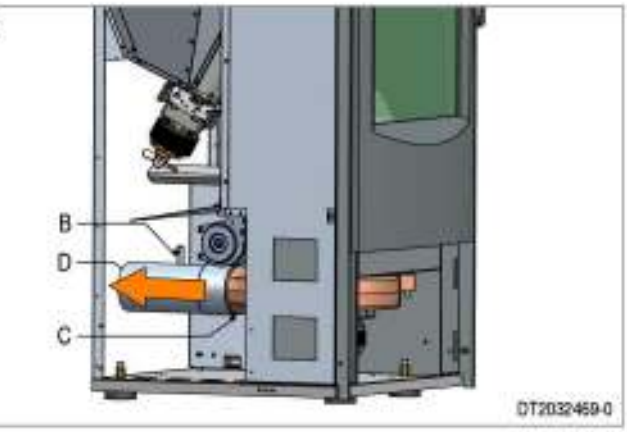
- Remove the rear stove panel [A]. (Fig. 42)

Fig. 42



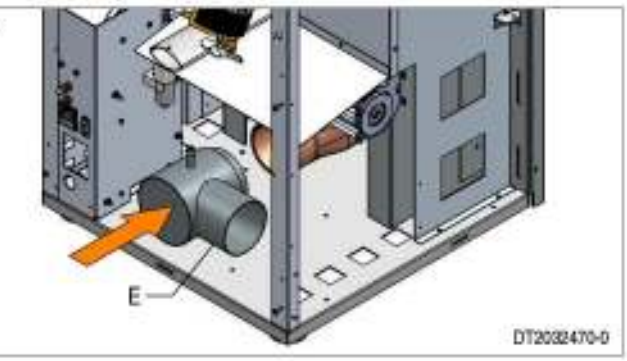
- Remove the smoke sensor after having removed the relative fastening screw [B].
- Remove the screw securing the flue outlet pipe [C], to be found in the lower part of the actual pipe.
- Draw the rear flue gas outlet pipe [D] out of the stove (once removed the pipe may be disposed of). (Fig. 43)

Fig. 43



- Replace the removed pipe [D] with the side flue gas outlet connection [E] to be found in the kit, inserting it fully into its seat and taking care to seal it with a gasket and a silicone-based (not cement-based) sealant. (Fig. 44)

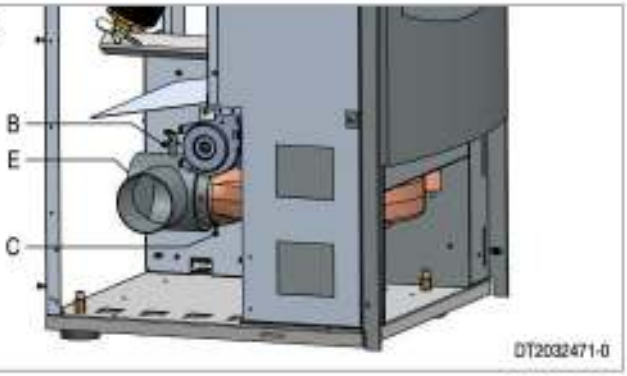
Fig. 44



- Secure the flue gas outlet connection [E] with the previously removed screw [C].
- Refit the smoke sensor, ensuring that it is fully inserted and securing it with the screw [B], which must not be overtightened. (Fig. 45)

- Refit the rear panel [A].

Fig. 45



- Take the previously removed left side panel and use a screwdriver to remove the knockout [F] to be found in the lower part, taking care not to scratch or buckle the panel.
Apply the edge gasket [G] provided in the kit around the edge of the hole made in the panel. Cut off any excess gasket. (Fig. 41)

⚠ **It is advisable to secure the gasket with a few drops of high heat-resistant silicone.**

- Refit the left side panel, proceeding with the steps described for removal in the reverse order.

- Connect to the flueway in accordance with the instructions given in the section "**GENERAL RULES**".

- Finish installing the cladding.

⚠ **When installing with side flue gas outlet, the MINIMUM distance of the flue gas outlet pipe from the stove is given in the paragraph "DIMENSIONS".**
This measurement is obtained by inserting a pipe with diameter 80 mm and length 158 mm (measurement H - Fig. 42) between the side flue gas outlet connection and the union tee.

Fig. 46

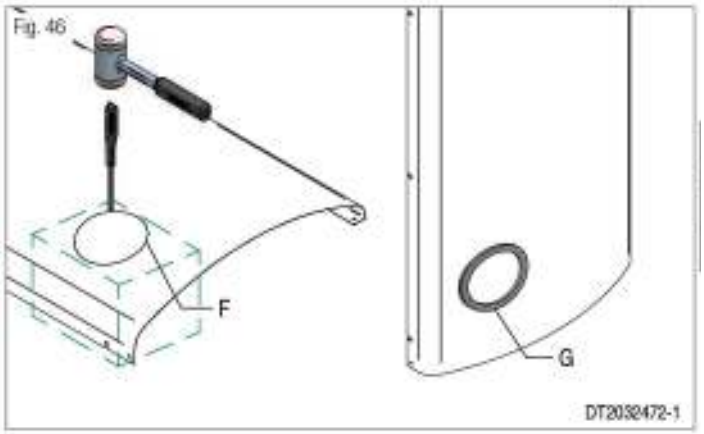
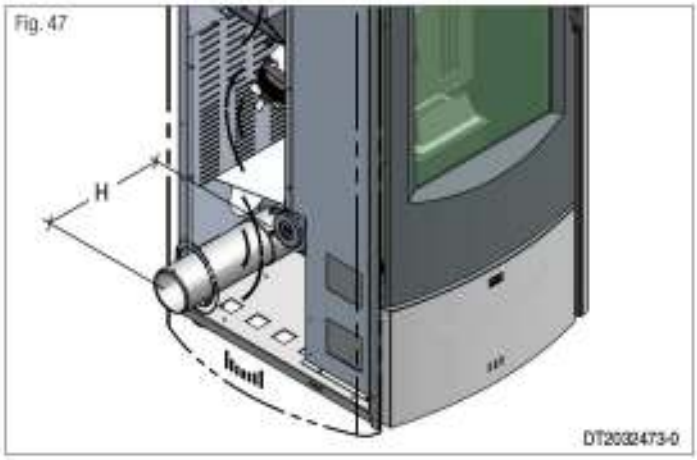


Fig. 47



5.0 FUEL

DT2010233-04

The wood pellet is obtained by pressing wood sawdust left over from the working of natural dried wood. The typical small, cylindrical form is obtained by passing the material through a die. Thanks to lignin, a natural element which is released during the pressing of the raw material, the pellets acquire a good consistency and compactness without requiring treatment with additives or caking agents.

There are various types of pellet on the market with qualities and characteristics that vary depending on the processes they have undergone and the type of wood used in their production.
Since the characteristics and quality of the pellet considerably affect stove performance, efficiency and proper operation, we recommend that you use high-quality pellets.

The factory has tested and programmed its stoves and can ensure best performance and trouble-free operation using pellets with the following specific characteristics:

Pellet characteristics	
Components	Natural pure wood pellet
Length, approx.	10 - 30 mm
Diameter, approx.	6 - 6,5 mm
Apparent density, approx.	650 kg/m³
Specific weight, approx.	> 1,0 kg/dm³
Net heat value, approx.	5 kWh/kg
Moisture content, approx.	< 8 %
Residual ash, approx.	< 0,5 %
N.B. the above data refer to beech/fir wood pellets	

To ensure trouble-free operation:
DO NOT use pellets with dimensions other than those recommended by the manufacturer
DO NOT use poor quality pellets containing sawdust, bark, maize, resins or chemical substances, additives or adhesives.
DO NOT use damp pellets.
Choosing other and unsuitable pellets:
- obstructs the grate and flue gas pipes;
- increases fuel consumption;
- reduces efficiency;
- means that proper stove operation cannot be guaranteed;
- causes dirt to build up on the glass;
- leaves particles which have failed to burn and heavy cinders.

The presence of moisture in the pellets increases their volume and causes them to split which in turn causes:
- malfunction of the fuel-loading system;
- inefficient combustion.

Pellets should be stored in a sheltered, dry place.

To use good quality pellets with dimensions and heat-producing properties other than those recommended above, it will be necessary to change the stove operating parameters.

⚠ **This "customisation" of stove settings must be carried out at a Superior Service Centre or by specially qualified personnel authorised by the factory.**
Using pellets that are out of date or not in conformity with the manufacturer's recommendations not only damages the stove and jeopardises its performance, but can render the guarantee null and void and relieves the manufacturer of all liability.

5.1 LOADING THE PELLETS

DT2010730-00

To load the pellets into the hopper it is advisable to tear off the edge of the sack and empty the sack directly into the hopper. This makes filling easier and avoids pouring pellets on top of the stove.

⚠ **Do not allow sawdust to accumulate on the bottom of the hopper.**
Do not leave leftover pellets on top of the stove - they could catch fire!

DT2030459-00

DT2030460-00

6.0 USE

DT2011649-00

- Do not use the stove as a cooking appliance.
- Ensure that the room in which the stove is installed is sufficiently well ventilated (fresh air intake).
- Ensure that all joints in the flue are hermetically sealed using a silicone- (not cement-) based sealant which is resistant to temperatures of up to 250°C and which shows no sign of deterioration.
- Check (or have checked) regularly that the flue is clean.
- Under no circumstances use fuels other than pellets.
- Remove any deposits of unused pellets left by failed ignition before restarting the stove.

⚠ **During operation some parts of the stove (door, handle, controls, ceramic parts) can reach high temperatures. Take great care and all the necessary precautions, especially in the presence of children, the elderly or disabled and pets.**
Keep any inflammable object well away from the stove while it is in use (MINIMUM 80 cm from the front panel).
While in use the door must remain closed and the glass must be present and intact. The removal of the protective grille inside the pellet hopper is strictly prohibited. If replenishing with pellets while the stove is lit, ensure that the bag does not come into contact with any hot surfaces

DT2010035-05

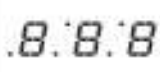
6.1 CONTROL PANEL

DT2012175-01

- The stove is fitted with a digital control panel, which allows the user to control the various functions.
- When the stove is connected to the electrical system but is not in the operating mode, the actual time (e.g.: **12:30**) or the water temperature appears in the left part of the display, while the readout **OFF** appears in the right part.

DT2033410-00

The control panel keys and their various functions are listed below. These have been numbered in order to make identification easier.

	Key 4 (ON-OFF)	Used for: - manual startup and shutdown. - exit from programming mode.
	Key 5-6 (adjustment/ selection)	When the stove is in operation, they can be used: -to set the power between 1 and 5 In the stove programming stage, they are used: - to access the programming menu (key 6) - to scroll the menu programs and the timer-thermostat - to scroll time meter storage menu (parameter submenu)
	Key 1-2 (adjustment/ selection)	When the stove is in operation, they can be used: - to set the room temperature between 60° C and 75° C - set temperature boiler / automatic set temperature boiler In the stove programming stage, they are used: - to select the language - to select the day and time for clock settings - to set the timer-thermostat parameters - to enable the buzzer.
	Key 3 (SET)	Used for: - confirmation of the selected menu - set water temperature.
	**Control display**	Displays: - actual time/water temperature - power setting - set functions

6.2 SETTING THE LANGUAGE

DT2011651-00

This function allows one of the four languages available to be set on the display according to the country where the product is installed.

Description of activity	Display
Press key 6 for a few seconds. The scrolling readout "SELECT LANGUAGE" will appear on the right part of the display. Confirm by pressing the SET key.	SELECT LANGUAGE
Using key 1 or 2, scroll the languages on the left part of display until the required language appears. E.g.: ENG Confirm by pressing the SET key.	ENG LANGUAGE
After confirmation, the scrolling readout "FUNCTION ENABLED" appears on the right display, after which the initial display returns.	FUNCTION ENABLED

6.3 PROGRAMMING

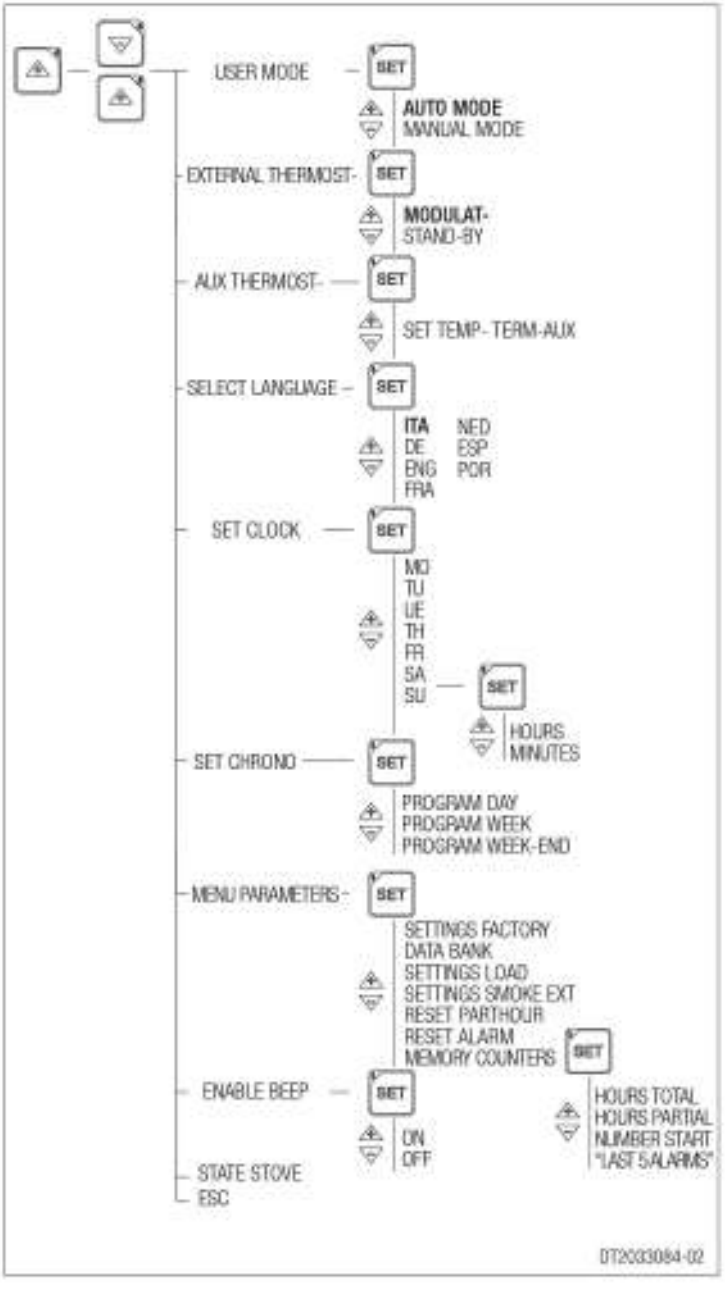
DT2011652-02

Press key 6 for at least 5 seconds to enter stove programming.
- Repeatedly press key 5 or 6 to scroll the main menu (factory setting in bold).
- Having selected the function to be programmed, confirm using the SET key. Now display the submenus by repeatedly pressing key 1 or 2.
- Confirm selection using the SET key and proceed in the same way until the readout "FUNCTION ENABLED" appears on display. The stove now returns to the initial display.

Repeat the above steps for each menu to be programmed.

See the appropriate table to programme each function.

- Press key 4 once to return to the previous menu.



6.4 PROGRAMMING THE CLOCK

DT2011643-00

Correct time setting is necessary to be able to use all the functions where time is involved.
Setting the clock entails programming the following values: day, hour and minutes.
These values are displayed in sequence upon pressing the SET key.

Description of activity	Display
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on the right apart of display until the scrolling readout SET CLOCK appears. Confirm by pressing the SET key.	SET CLOCK
Using key 1 or 2, scroll the hours of the day that appear on the left part of display until the required hour appears. Confirm by pressing the SET key.	MO DAY
Using key 1 or 2, scroll the minutes of the day that appear on the left part of display until the required minutes appear. Confirm by pressing the SET key.	10.' HOURS
Using key 1 or 2, scroll the days of the week that appear on the left part of display until the required day appears. Confirm by pressing the SET key.	.'32 MINUTES
The display automatically returns to its initial status.	10.'32 OFF

6.5 TIMER

DT2011653-00

The timer allows the user to programme the stove to start up and shut down automatically without any manual intervention.
Daily, weekly and weekend programmes can be selected with a maximum of two operating cycles in two separate timetable bands.
For example: *Cycle 1: from 6am until 9am*
Cycle 2: from 8.30pm until 11pm

In the DAILY programme the two timetable bands once established can be activated or deactivated for all the days of the week.
For example: if you want the stove to operate from 6am to 9am every day.

In the WEEKLY programme the two timetable bands once established can be activated or deactivated for each day.
For example: if you want the stove to operate from 6am to 9am on Monday, Tuesday, but not on Wednesday, and so on.

In the WEEKEND programme the two timetable bands once established can be activated or deactivated for Friday, Saturday and Sunday.
For example: if you want the stove to operate from 6am to 9am on Friday, Saturday, but not on Sunday.

This kind of timer allows you to have three programmes (DAILY, WEEKLY and WEEKEND) stored permanently. The programmes can be activated or deactivated using the SET CHRONO menu. It is advisable to have only one programme active at a time to avoid overlapping.

⚠ **WHEN USING THE TIMER FOR THE FIRST TIME, SET THE CLOCK WITH THE CURRENT DAY, HOUR AND MINUTES, as with a new watch. To set the actual time, see the table SETTING THE CLOCK. This setting will only be necessary the first time of activating the clock.**
If several programs are active with overlapping times, the stove will start up with the first programmed start time and will always stop at the first set time irrespective of the daily, weekly or weekend program.

DAILY PROGRAM

DT2011654-00

Description of activity	Display	
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on display until the scrolling readout SET CHRONO appears. Confirm by pressing the SET key.		SET CHRONO
The scrolling readout PROGRAM DAY appears on display. Confirm by pressing the SET key.		PROGRAM DAY
Use key 1 or 2 to scroll the options ON, to enable the daily program, OFF, to disable. Confirm by pressing the SET key. If you have disabled the program by selecting OFF and do not want to proceed with programming, press key 4 to exit. Press key 4 once to return to the SET CHRONO menu; press twice to return to the initial display.	ON	ENABLE DAY
Use key 1 or 2 to set the start time of the first operating cycle. Each time the key is pressed the time advances by 10 minutes. For automatic fast advance, hold the key pressed down for a few seconds. Confirm the set time by pressing the SET key.	14.20	START DAY PROGRAM 1
Use key 1 or 2 to set the stop time of the first operating cycle. Each time the key is pressed the time advances by 10 minutes. For automatic fast advance, hold the key pressed down for a few seconds. Confirm the set time by pressing the SET key.	16.00	STOP DAY PROGRAM 1
It is possible not to set the stop time by setting the readout to OFF. Use key 1 or 2 to scroll the timetable band to find OFF, which appears at the end of the 24-hour cycle. Confirm by pressing the SET key.	OFF	STOP DAY PROGRAM 1
Press key 1 or 2 to set the required power level during the first operating cycle. Confirm by pressing the SET key.	02	SET DAY PO 1
Press key 1 or 2 to set the required water temperature during the first operating cycle. Confirm by pressing the SET key.	60°	SET TEMP- WATER 1
Programming automatically passes to the second operating cycle. To continue programming for the second cycle, proceed in sequence with the steps given for the first cycle. The number 2 appears on the display, indicating the second operating cycle. If you do not want to program a second cycle, set START and STOP of the second programming cycle to OFF.	17.20	START DAY PROGRAM 2

WEEKLY PROGRAM

DT2011655-00

Description of activity	Display	
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on display until the scrolling readout SET CHRONO appears. Confirm by pressing the SET key.		SET CHRONO
Use key 5 or 6 to scroll the available functions that appear on display until the scrolling readout PROGRAM WEEK appears. Confirm by pressing the SET key.		PROGRAM WEEK
Use key 1 or 2 to scroll the options ON, to enable the weekly program, OFF, to disable. Confirm by pressing the SET key. If you have disabled the program by selecting OFF and do not want to proceed with programming, press key 4 to exit. Press key 4 once to return to the SET CHRONO menu; press twice to return to the initial display.	ON	ENABLE WEEK
Use key 1 or 2 to set the start time of the first operating cycle. Each time the key is pressed the time advances by 10 minutes. For automatic fast advance, hold the key pressed down for a few seconds. Confirm the set time by pressing the SET key.	14.20	START WEEK PROGRAM 1

Description of activity	Display
Use key 1 or 2 to set the stop time of the first operating cycle. Each time the key is pressed the time advances by 10 minutes. For automatic fast advance, hold the key pressed down for a few seconds. Confirm the set time by pressing the SET key.	16.00 STOP WEEK PROGRAM 1
It is possible not to set the stop time by setting the readout to OFF. Use key 1 or 2 to scroll the timetable band to find OFF, which appears at the end of the 24-hour cycle. Confirm by pressing the SET key.	OFF STOP WEEK PROGRAM 1
Press key 2 to select the day of the week. Press key 1 and select ON to activate the first operating cycle on the selected day, or select OFF to deactivate it. Proceed for all seven days of the week. Confirm by pressing the SET key.	MON DAYS WEEK LIT 1
Press key 1 or 2 to set the required power level during the first operating cycle. Confirm the power setting by pressing the SET key.	02 SET WEEK PO 1
Press key 1 or 2 to set the required water temperature during the first operating cycle. Confirm the temperature by pressing the SET key.	60° SET TEMP-WATER 1
Programming automatically passes to the second operating cycle. To continue programming for the second cycle, proceed in sequence with the steps given for the first cycle. The number 2 appears on the display, indicating the second operating cycle. If you do not want to program a second cycle, set START and STOP of the second programming cycle to OFF.	17.20 START WEEK PROGRAM 2

WEEKEND PROGRAM	0T2011656-00
Description of activity	**Display**
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on display until the scrolling readout SET CHRONO appears. Confirm by pressing the SET key.	SET CHRONO
Use key 5 or 6 to scroll the available functions that appear on display until the scrolling readout PROGRAM WEEK-END appears. Confirm by pressing the SET key.	PROGRAM WEEK-END
Use key 1 or 2 to scroll the options ON, to enable the weekend program, OFF, to disable. Confirm by pressing the SET key. If you have disabled the program by selecting OFF and do not want to proceed with programming, press key 4 to exit. Press key 4 once to return to the SET CHRONO menu; press twice to return to the initial display.	ON ENABLE WEEK-END
Use key 1 or 2 to set the start time of the first operating cycle. Each time the key is pressed the time advances by 10 minutes. For automatic fast advance, hold the key pressed down for a few seconds. Confirm the set time by pressing the SET key.	14.20 START WE PROGRAM 1
Use key 1 or 2 to set the stop time of the first operating cycle. Each time the key is pressed the time advances by 10 minutes. For automatic fast advance, hold the key pressed down for a few seconds. Confirm the set time by pressing the SET key.	16.00 STOP WE PROGRAM 1
It is possible not to set the stop time by setting the readout to OFF. Use key 1 or 2 to scroll the timetable band to find OFF, which appears at the end of the 24-hour cycle. Confirm by pressing the SET key.	OFF STOP WE PROGRAM 1
Press key 2 to select the day of the week. Press key 1 and select ON to activate the first operating cycle on the selected day, or select OFF to deactivate it. Proceed for the three days of the week – Friday, Saturday and Sunday. Confirm by pressing the SET key.	SUON DAYS WE LIT 1

Description of activity	Display
Press key 1 or 2 to set the required power level during the first operating cycle. Confirm the power setting by pressing the SET key.	02 SET WE PO 1
Press key 1 or 2 to set the required water temperature during the first operating cycle. Confirm the temperature by pressing the SET key.	60° SET TEMP- WATER 1
Programming automatically passes to the second operating cycle. To continue programming for the second cycle, proceed in sequence with the steps given for the first cycle. The number 2 appears on the display, indicating the second operating cycle. If you do not want to program a second cycle, set START and STOP of the second programming cycle to OFF.	17.20 START WE PROGRAM 2

6.6 PARAMETERS MENU

DT2011676-00

The User can only interact with the TIME METER STORAGE and LOADING AUGER in the parameter menu, as described in the table below: the other parameters can only be used by an authorised service centre.

TIME METER STORAGE DT2011679-00

Description of activity	Display
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on display until the scrolling readout MENU PARAMETERS appears. Confirm by pressing the SET key.	MENU PARAMETERS
Use key 5 or 6 to scroll the menu that appears on display until the scrolling readout MEMORY COUNTERS appears. Confirm by pressing the SET key.	MEMORY COUNTERS
The scrolling readout HOURS TOTAL appears on display and the total hours of operation on the left display. Use key 5 to go back within the time meter storage menu. Press key 6.	0000 HOURS TOTAL
The scrolling readout HOURS PARTIAL appears on display and the number of partial hours on the left display. Use key 5 to go back within the time meter storage menu. Press key 6.	0000 HOURS PARTIAL
The scrolling readout NUMBER START appears on display and the number of actual starts on the left display. Use key 5 to go back within the time meter storage menu. Press key 6.	0000 NUMBER START
The last 5 alarms (e.g.: PROBE SMOKE) appear on display and the readout MEM1, MEM2, MEM3, MEM4, MEM5 on the left display. Use key 5 to go back within the time meter storage menu. Press the SET key to return to the initial display.	MEM1 PROBE SMOKE

LOADING AUGER DT2040101-00

Description of activity	Display
Select parameters menu. Press the MENU key, use the SELECT MENU key to select the **PARAMETER MENU** and confirm by pressing the SET key.	MENU PARAMETER
Select loading auger. Press the SELECT MENU key and scroll the menu until the readout **LOADING AUGER** appears. Confirm by pressing the SET key.	LOADING AUGER
The readout **IN LOAD** appears on the display during loading.	IN LOAD
After a set time the auger will be filled and the readout **AUGER LOADED** appears.	AUGER LOADED

6.7 BUZZER ENABLE

DT2011657-00

This function is used to enable or disable the warning signal emitted if a safety device is activated.

Description of activity	Display
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on display until the scrolling readout ENABLE BEEP appears. Confirm by pressing the SET key.	ENABLE BEEP
Use key 1 or 2 to select on display the option ON to enable the buzzer or OFF to disable. Confirm by pressing the SET key.	ON MODE BEEP
After confirmation the scrolling readout "FUNCTION ENABLED" appears on the right part of the display and the display then returns to its original status.	FUNCTION ENABLED

6.8 LIGHTING FOR THE FIRST TIME

DT2010082-06

- Before lighting the stove for the first time, check that the grate is properly placed and pushed towards the left.
- There will be odours when lighting the first few times due to the evaporation of paints and oils used during the manufacturing process.
During this stage, air the room well where the stove is installed and avoid staying there any length of time since the fumes being given off could be harmful to persons or pets.
The stove body should have settled down and the paints fully evaporated after having lit the stove a few times.
To this end, follow the instructions given below when using the stove.
- Operate at medium power for the first 5-6 hours after igniting the fuel (the expansion caused by the heat during this stage will allow the stove body to settle).
- After the settling-down stage the stove must be set to operate at maximum power for a period between 6 and 10 hours, depending on the amount of paint on the stove body that must be evaporated off.

The time indicated for operation at maximum power does not necessarily have to be continuous, but may be divided up into two periods separated by an interval of at least 3-4 hours with the stove shut down.
At the end of the recommended period the paint will have evaporated and the stove should be used at the suitable power for normal use.
If necessary the stove may be used for a further period at maximum power to ensure complete and final disappearance of all paint residue.
When the hopper is being loaded for the first time the loading auger needs time to fill up; during this stage the pellets are not distributed inside the firebox and it is highly probable that the first attempt at ignition fails. If the alarm is activated, shut down the stove by pressing the ON/OFF key for a few moments, remove the fuel in the grate and then set the stove for a new ignition process.
Dispose the not burned pellets contained in the brazier.

6.9 LIGHTING AND NORMAL OPERATION

DT2011659-00

Before lighting, remember to check that:

⚠ **The mains plug is properly inserted into the socket.**
The stove door is tightly shut.
The pellet hopper is full or contains sufficient pellets for the stove to operate for the required time.

STOVE STARTUP DT2011660-00

Description of activity	Display
Keep key 4 pressed down for a few seconds. A cycle starts with three phases which take the stove into the normal operating mode. **- CONTROL (first 20 seconds)** The lighter (glow plug) activates. The display LED lights up.	12:30 CONTROL
START PHASE I The extractor fan starts up. The fuel-loading auger is activated and starts to feed pellets into the grate.	12:30 START PHASE I
START PHASE II - If the lighter has triggered the combustion process, the auger increases fuel loading to allow a period of stabilisation and correct combustion of the pellets in the subsequent normal operating mode. - If during the startup phase the sensor on the flue gas outlet shows a rise in temperature (sign that the combustion process is underway), the stove is considered to be lit and goes into the normal operating mode.	12:40 START PHASE II

IGNITION FAILURE

DT2011661-00

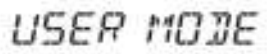
Description of activity	Display
If the readout NO LIT appears on display during the startup stage (and the buzzer activates, if set), it means that the sensor installed on the flue gas outlet detects no temperature rise (sign that the combustion process has not been triggered) or the pellet hopper is empty. The stove goes into the alarm status.	12.'50 NO LIT
Shut down the stove by pressing key 4 for a few seconds: the warning buzzer stops. The scrolling readout CLEANING BRAZIER appears on display and when the stove has cooled the readout OFF appears. Check the causes of activation of the safety device and always remove all the fuel from the grate before attempting ignition again.	12.'50 OFF
Restart the stove by pressing key 4. Repeat the procedure given above for lighting the stove.	13.'20 CONTROL

⚠ **If the stove occasionally fails to ignite it could be caused by:**
- pellet composition or size not in compliance with the specifications given in this booklet (see the "FUEL" section);
- insufficient mains voltage, whether in the form of intermittent voltage drops or a constantly lower value.
In the above cases any call-out of the service centre is not covered by the warranty, since the problem is not due to a defect in the product.

NORMAL OPERATION

DT2011662-00

Description of activity	Display
Once the stove is properly lit, it will stabilise in the normal mode of operation. The power setting appears on display: P1, P2, P3, P4, P5. The time or the water temperature appears on display. (See paragraph "**DISPLAY MODE**"). The power and the water temperature settings may be adjusted during normal operation.	12.'50 P2
To change the power setting, press key 6. The scrolling readout SET POWER appears in the right display. Use key 5 or 6 to select the required power level, which will appear on display. The display automatically returns to its initial status.	02 SET POWER
To change the temperature setting, press the SET key. The scrolling readout SET TEMP-WATER appears on display. Use key 1 or 2 to select the required temperature from a scale between 60° C and 75° C, which will appear on display. The display automatically returns to its initial status.	60° SET TEMP-WATER
Automatic grate cleaning is activated during regular stove operation at programmed intervals that are set by Superior personnel. This procedure is necessary in order to eliminate accumulation of ash or encrustation that would prevent correct stove operation and must therefore be removed.	16.'30 CLEANING BRAZIER

USER MODE: AUTO MODE	OT2012121-00
Description of activity	**Display**
It is possible to set a mode of operation that is simpler to manage, in which just the water temperature needs to be set and the electronics do all the rest. This function is called automatic operation and can be selected through the USER MODE menu (see "**PROGRAMMING**").	
During operation the readout **AUTO** appears on display, while the TIME and WATER TEMPERATURE remain in the left part of the display.	

EXTERNAL THERMOSTAT	OT2040121-00
Description of activity	**Display**
The operation of the external thermostat is characterized by the function that the user chooses to give it through the programming menu EXTERNAL THERMOSTAT (see "**PROGRAMMING**").	
The item "EXTERNAL-THERMOST" in the user menu, offers two different modes of controlling external thermostat activation: - MODULATE for instantaneous reduction of power to a minimum upon activation of the thermostat. - STAND-BY for temporary shutdown, always following activation of the external thermostat. Upon completion of the set shutdown/cooling period, when or if a new ignition is requested, the minimum safety conditions will be checked and when they are all satisfied a new ignition cycle will start. ⚠ **It should be remembered that the contact is "free", i.e. with zero potential, the presence of electric potential at the terminals can irreparably damage the PCB. It is possible to connect a control device other than the room thermostat, e.g. a storage tank thermostat, an acknowledgement device of a control unit for solar or alternative energy, an acknowledgment device of a boiler, etc.**	

AUX THERMOSTAT	OT2012109-00
Description of activity	**Display**
This function is managed by the electronic control board; an output signal is produced (relays, solenoid valves) upon reaching or exceeding a temperature threshold that can be freely set by the user (see "**PROGRAMMING**") under AUX THERMOSTAT. ⚠ **This signal is at 230 V and must therefore be managed with due precaution when connecting to other components to avoid damage or dangerous situations. No indication is given on the display.**	

POWER SUPPLY CUTOFF

OT2011665-01

Description of activity	Display
If there is a blackout while the stove is in operation, there are two possibilities of procedure according to stove set-up: **- blackout without timer thermostat settings;** **- blackout with timer thermostat settings.**	
Blackout without timer thermostat settings. When the electricity supply is restored, the appliance restarts automatically. • The grate cleaning phase activates. • The fan operates at full speed to allow the stove to cool. • The automatic stove restart cycle starts (the steps detailed in the 'STARTUP' phase are repeated automatically). • Once the ignition cycle has been completed the stove operates normally at power level 2. **Blackout with timer thermostat settings.** There are 3 possible situations. • Blackout straddling the time set for ignition: the stove does not restart. • Blackout straddling the time set for shutdown: the stove restarts when the electricity supply is restored. • Blackout within the programmed operating time band: the stove restarts when the electricity supply is restored. Restarting is carried out with the same procedure as listed in "**Blackout without timer thermostat settings**".	16:30 CLEANING

EMERGENCY LIGHTING OF STOVE

OT2040098-00

Description of activity	Display
If the glow plug is not working, the stove may be lit manually as follows: - pour a small quantity of pellets into the grate; - use a lit piece of firelighter (not liquid) to ignite the pellets; - close the door; - start the stove using the ON/OFF button.	

⚠ **This procedure is only to be carried out in an emergency while waiting for the servicing technician to arrive.**

SHUTDOWN

OT2011664-00

Description of activity	Display
Hold the ON/OFF key down for several seconds. Fuel loading stops, while the cooling fan and the extractor fan continue to operate until the stove is cool. The scrolling readout CLEANING BRAZIER first appears followed by the readout OFF. ⚠ **Never unplug the stove from the power supply at this stage as this could cause internal problems and jeopardise subsequent ignition operations.**	16:30 CLEANING BRAZIER

6.10 SAFETY DEVICES

⚠ **During operation some parts of the stove (door, handle, ceramic parts) can reach high temperatures.**

Remember to maintain the safety distances indicated previously.
Be careful, take all due precautions and always comply with the instructions.
If during operation smoke leaks from any part of the stove or the flue, shut the stove down immediately and ventilate the room.
When the stove has cooled, check for the cause of the leak and if necessary call in specialist personnel.
The stove is fitted with several safety devices to guarantee safe operation.

⚠ **The safety devices are fitted to eliminate the risk of injury to people and pets and damage to property. Tampering or work carried out by unauthorised personnel can jeopardise this function.**

SMOKE CHAMBER PRESSURE DT2012179-00	
Description of activity	**Display**
The pressure switch "ALF 1" is connected to the flue gas outlet, its function is to control the vacuum inside the outlet duct so that the stove can be used in all safety.	
The pressure switch is activated if there is a change in the conditions required for correct operation in the flue gas outlet duct (incorrect installation, blockages or obstructions in the flue, poor maintenance, unfavourable weather conditions such as persistent wind, etc.) the pressure switch cuts off the power supply to the fuel-loading auger, thereby stopping the supply of pellets to the grate and starting the stove shutdown process. - The readout SAFETY STOVE appears on display . **- The readout "ALF 1" appears in the STATE STOVE (STOVE STAUS) mode.** - After approx. 60 seconds the alarm buzzer sounds (if activated).	SAFETY STOVE
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm will stop. - Wait until combustion of any pellets remaining in the grate has finished. - After having cleaned the grate, restart the stove by pressing the ON/OFF key. (The readout ALL must no longer appear on the display. If this is not the case call the After-Sales Service Centre).	
The pressure switch "ALF 2" control the correct pressure-switch operation, it's checked so that the appliance may be used in all safety At the time of stove startup.	
- The readout SAFETY STOVE appears on display (in the case of pressure switch failure). **- The readout "ALF 2" appears in the STATE STOVE (STOVE STAUS) mode.** - After approx. 60 seconds the alarm buzzer sounds (if activated).	SAFETY STOVE
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm will stop. - Call the After-Sales Service Centre.	

FLUE GAS TEMPERATURE SENSOR

DT2040054-05

Description of activity	Display
The flue gas sensor is connected to the electronic board. It constantly monitors the working temperature allowing the stove to be used in all safety. If the temperature exceeds the fixed safety limit, the board cuts off the power supply to the fuel-loading auger thus depriving the grate of pellets and starting the stove shutdown process. - The readout SAFETY STOVE appears on display. **- Activated in the STATE STOVE (STOVE STAUS) function, the scrolling readout MASS TEMP** (max. temp) appears on the right part of the display and 00.0P alternating with the flue gas sensor temperature on the left part of the display. - After approx. 30 seconds the alarm buzzer sounds (if activated).	SAFETY STOVE
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm will stop. - Wait until combustion of any pellets remaining in the grate has finished. - Check and remove the causes have activated the alarm. - After having cleaned the grate, restart the stove by pressing the ON/OFF key.	
If the sensor is momentarily or accidentally removed from its normal position, or is not connected properly to the electronic board, the alarm is activated. - The scrolling readout PROBE SMOKE (flue gas sensor) appears on display. **- Activated in the STATE STOVE (STOVE STAUS) function, the scrolling readout NO CONN** appears on the right part of the display and 00.0P alternating with the flue gas sensor temperature on the left part of the display. - After approx. 30 seconds the alarm buzzer sounds (if activated).	PROBE SMOKE
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm will stop. - Call the After-Sales Service Centre.	

WATER IN BOILER TEMPERATURE SENSOR

DT2040120-00

Description of activity	Display
Connected to the electronic board, it constantly monitors the working temperature allowing the stove to be used in all safety.	
WHEN ACTIVATED If the temperature exceeds the fixed safety limit the board cuts off the power supply to the fuel-loading auger thus depriving the grate of pellets and starting the stove shutdown process. - In the display appears the message "SAFETY BOILER". **- The readout "MASS H2O" and the flue gas temperature appear in the STATE STOVE (STOVE STAUS) mode.** - After approx. 60 seconds the alarm sounds (if activated).	SAFETY BOILER
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm stops. - Wait until you are sure that combustion of any pellets remaining in the grate has stopped. - Check for and remove whatever has triggered the safety device. - After having cleaned the grate restart the stove by pressing the ON/OFF key.	
WHEN ACTIVATED If the sensor is momentarily or accidentally removed from its normal position, or is not connected properly to the electronic board. **- The readout "SONDA H2O" and the flue gas temperature will appear in the STATE STOVE (STOVE STAUS) mode.** - After approx. 60 seconds the alarm sounds (if activated).	SAFETY WATER
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm stops. - Call the After-Sales Service Centre.	

WATER TEMPERATURE IN THE BOILER	DT2040118-00
Description of activity	**Display**
The automatic reset thermostat sensor is located on the pellet hopper and its function is to protect the hopper from excessive changes in temperature. If the pellet hopper temperature reaches critical levels, the thermostat cuts off the power supply to the fuel-loading auger, thereby stopping the supply of pellets to the grate and starting the stove shutdown process. - The readout SAFETY THERMAL appears on display. **- The readout "ALC" appears in the STATE STOVE (STOVE STAUS) mode.** - After approx. 60 seconds the alarm buzzer sounds (if activated).	SAFETY THERMAL
WHAT TO DO - Shut down the stove by holding the ON/OFF key down for several seconds. - The alarm will stop. - Wait until combustion of any pellets remaining in the grate has finished. - Wait until the stove is cooled up and reset the thermostat - After having cleaned the grate, restart the stove by pressing the ON/OFF key. (The readout SAFETY THERMAL must no longer appear on the display. If this is not the case call the After-Sales Service Centre).	

6.11 STOVE STATUS

DT2012298-01

This function displays the stove status under the various operating conditions.

Description of activity	Display
Press key 6 for a few seconds. Use key 5 or 6 to scroll the menu that appears on the right display until the scrolling readout STATE STOVE appears. Confirm by pressing the SET key.	STATE STOVE
The pellet loading time and the flue gas temperature alternate on the left display. The water temperature and any alarms appear on the right display. Alarm indications: **ALF1** Pressure switch activated **ALF2** Pressure switch anomaly **ALC** Safety thermostat activated **PUL** Clean grate **NO CONN** Flue gas sensor disconnected **NO ACC** Failed ignition **MASS TEMP** Flue gas sensor activated - maximum temperature reached **MASS H2O** Water sensor activation - maximum temperature reached **SONDA H2O** Water sensor disconnected	
Use key 4 to exit.	

6.12 OPENING THE DOOR

DT2010087-04

During operation the door must remain closed. It is to be opened only when the stove has been shut down and cooled for the carrying out of maintenance.
Use the door handle tool provided in the kit to open the door, using it as shown in the picture below.

Fig. 48

DT2032285-0

6.13 FROST-PROTECTION MODE

DT2040111-00

Description of activity	Display
When the water sensor detects a temperature of less than 6°C in the boiler, 3 actions occur: - the circulator is activated intermittently to prevent the pipes from freezing with consequent obstruction; - a single warning beep sounds once every 10 seconds; - the readouts "FROST WARNING" and "OFF" appear intermittently on the display.	FROST WARNING P2
WHAT TO DO To prevent damage to the appliance and to the water system/plumbing, it is advisable to start up the appliance. The readouts "CONTROL" and "FROST WARNING" appear intermittently on the display. Pay attention to the ignition phase since the very low room temperature could cause ignition failure (see "**FAILED IGNITION**"). If necessary carry out an emergency lighting procedure (see "**EMERGENCY LIGHTING**").	13:20 CONTROL

6.14 DISPOSAL OF ASHES

DT2010049-04

Ash from natural (non-treated) wood burned in stoves or open fireplaces is composed mainly of calcium, silicon, potassium and magnesium oxides.
The ashes can therefore be used as a fertiliser for plants or in the garden, albeit not exceeding 2.6 kg per 10m^2 annually.

⚠ **The ashes should be placed in a metal container with a sealed cover. The sealed container should be placed on a non-combustible surface at a safe distance from combustible materials until the cinders have been completely extinguished.**
Only when they have been fully extinguished can the ashes be thrown away with organic waste, assuming that nails or other non-organic material are not present.

7.0 MAINTENANCE

DT2012112-00

Pursuant to current regulations on the safety of electrical equipment, you must contact a Superior After-Sales Service Centre or a qualified electrician for all and any work connected with installation, maintenance or servicing that involves access to electrical parts.

Maintenance is to be considered compulsory for correct and efficient stove operation. If maintenance is not carried out with the recommended frequency, stove performance could suffer.
The manufacturer will not be responsible for stove deterioration or malfunction if due to poor maintenance.
All maintenance work (cleaning, any replacements, etc.) must be carried out when the stove is shutdown and cold.
Do not use materials that could scratch or damage the glass, since scratches could become cracks.
Under no circumstances use abrasive substances.
On the following paragraphs, the reported time indications are to be considered as example.
To dispose of the ashes, refer to the paragraph "**DISPOSAL OF ASHES**".

⚠ **The frequency of cleaning depends on how much the stove is used and the quality of the fuel.**

DT2010067-02

7.1 CLEANING THE GRATE AND THE GRATE SUPPORT

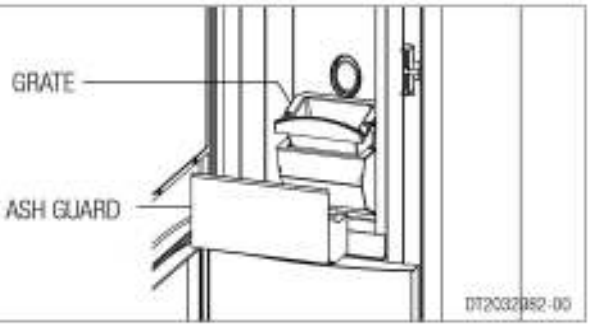
DT2011673-01

Clean the grate area periodically (approx. once every two days) and whenever the stove is to be lit:
- Remove the grate.
- Remove any ash or other material that may have built up, taking particular care to free any clogged holes using a sharp pointed tool.
- Make sure the "ignition hole", located on the back of the grate, is kept clean.
- Check the grate support and remove any ash.

To dispose of the ashes, refer to the paragraph "**DISPOSAL OF ASHES**".

⚠ **After cleaning and before lighting the stove, check that the grate is correctly inserted and pushed towards the back.**

Fig. 49



DT2032982-00

Fig. 50

DT2030239-02

7.2 CLEANING THE ASH GUARD

DT2012113-01

Every two days, check the ash drawer to see if it needs emptying.

7.3 CLEANING THE FIREBOX AND BAFFLE PLATE

DT2012114-01

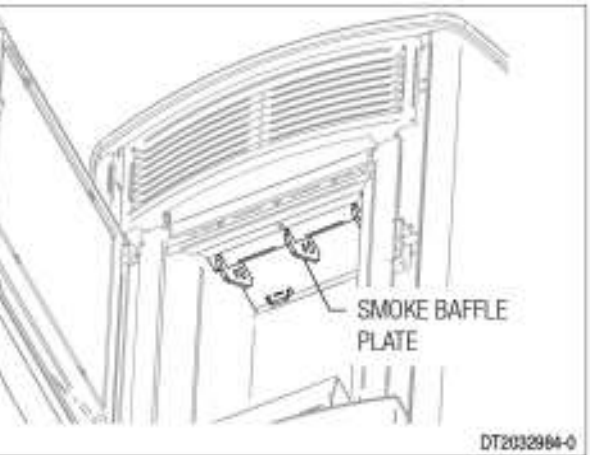
As a rough guide it is necessary to clean the top part of the firebox and the baffle plate inside it once a month.

⚠ **This type of cleaning requires a vacuum cleaner suitable for holding ash.**

Proceed as follows:
- grasp the baffle plate by the relative handle;
- lift it and then tilt the front part downwards;
- draw it out of its seat and remove it through the firebox door;

⚠ **The Aluker rear panel is now free.**
Take care not to let it fall.

Fig. 47

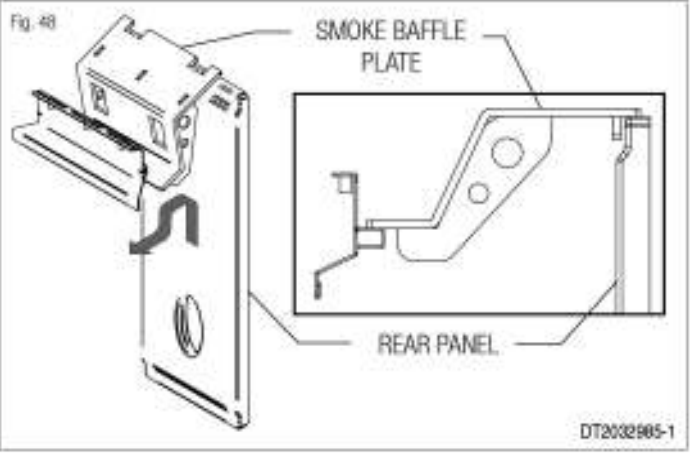


DT2032994-0

- remove the Aluker rear panel;
- using a suitable vacuum cleaner for ash, remove all the residues that have been deposited on the side walls and the upper area of the firebox;
- clean the removed parts and then refit them all in the reverse order to removal.

⚠ **Incorrect refitting of the baffle plate could cause appliance malfunction.**

Fig. 48



7.4 CLEANING THE SMOKE CHAMBER AND BOILER

DT2012115-00

As a rough guide it is necessary to clean the ducts for flue gas passage and the boiler once month.
Clean flue gas ducts ensure better appliance operation.

⚠ **This type of cleaning requires a vacuum cleaner suitable for holding ash. Take care when working not to scratch the enamel or damage the ceramic elements.**

• Remove the ceramic top surround and the top grille fitted in the upper part of the stove (Fig. 49)

• Using the allen wrench provided in the kit, remove the screws fastening the top plate, which are located at the sides of the plate. (Fig. 50)

• Grasp the top plate by the relative handles, lift it at the same time moving it towards in front of the stove and then draw out the plate tilting it upwards (Fig. 49)

• Using the tube-cleaning device provided in the kit, thoroughly clean all the flue gas ducts. Using a suitable vacuum cleaner, clean the top area of the appliance to remove deposited ash and carbon residues (Fig. 51)

• Close the smoke chamber following the steps described above in the reverse order, then replace the top grille and the ceramic surround.

Clean the firebox and baffle plate following the instructions given in the relative section.

Proceed with cleaning the smoke chamber.
• Remove the ash guard.
• Using the Allen wrench provided in the kit, loosen the screw fastening the smoke chamber bottom plate (the screw need not be fully removed). (Fig. 52)
• Grasp the smoke chamber bottom plate, lift it and remove it (Fig. 53)
• Now clean the actual smoke chamber: remove the deposited ash and combustion products also from under the flue gas ducts at the sides of the smoke chamber. Take care not to damage the vanes of the smoke extractor fan (Fig. 54)

• To dispose of the ashes, see "**DISPOSAL OF ASHES**".

Fig. 49

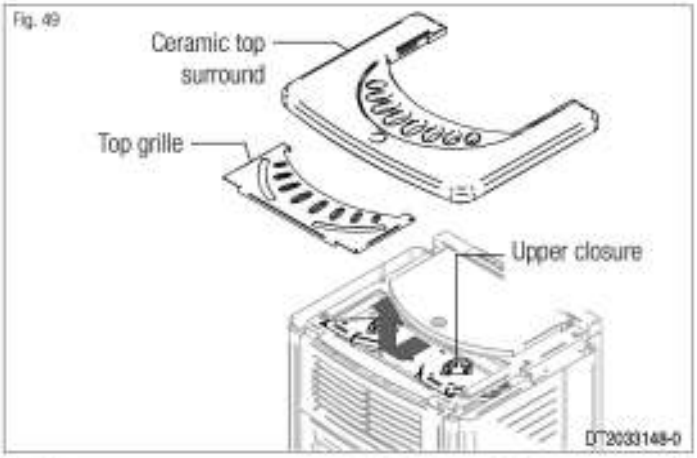


Fig. 50

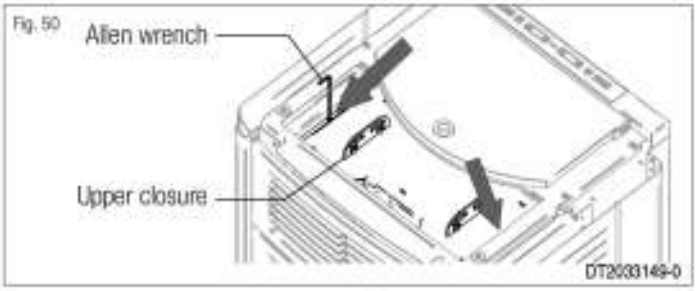


Fig. 51

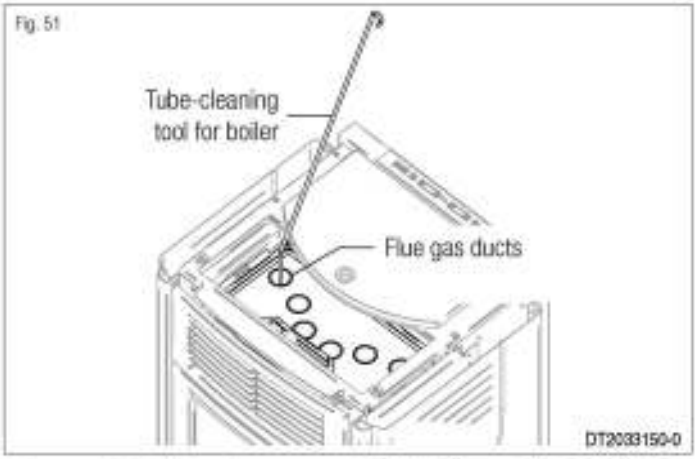


Fig. 52

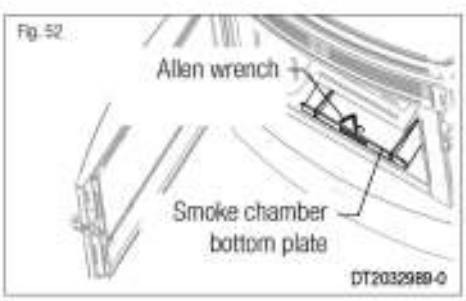


Fig. 53

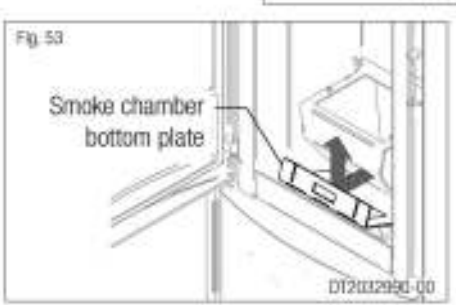


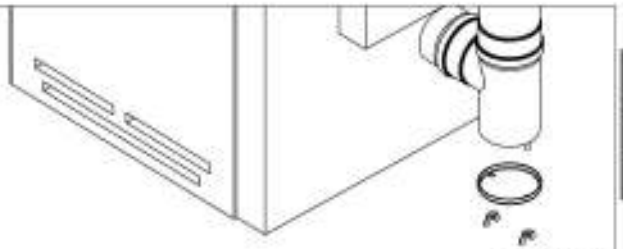
Fig. 54

7.5 CLEANING THE FLUE SYSTEM

DT2010092-03

Remove the plug from the Tee and clean the pipes.
Until you have got reasonably used to the operating conditions of the stove, we recommend that this maintenance be carried out on a monthly basis. If necessary, particularly on the first few occasions, we recommend calling in a qualified technician.

Fig. 56



DT2031151-00

7.6 CLEANING THE CERAMIC CLADDING

DT2010059-03

The ceramic cladding must first be cleaned with a soft dry cloth before using any detergent (even mild detergent).
Products are available on the market which are suitable for cleaning ceramics as well as concentrated products for cleaning porcelain. These will remove oil, ink, coffee and wine stains, etc.

⛔ **Never soak the ceramic cladding or clean it with cold water when it is still hot as the thermal shock could cause it to crack.**

7.7 CLEANING THE ENAMELLED METAL PARTS

DT2010061-03

When cleaning the enamelled metal parts of the product use a soft cloth moistened with water.
Never clean metal parts using alcohol, solvents, petroleum-based products, acetones or other degreasing or abrasive substances.
In the event of such substances being used the manufacturer cannot be held responsible for any damage caused. Discolouration of metal parts may be the result of misuse.

7.8 CLEANING THE GLASS (DAILY)

DT2010062-04

⚠ **The glass should be cleaned when cold using ammonia-based degreasing agents and not corrosive substances such as solvents.**

If the appliance is very slow to heat up in the ignition phase, this is likely to cause a build-up of tar on the glass. This will eventually burn off when the appliance is operating at full capacity. If the tar is left to build up over a long period it will require more effort to remove. **We therefore recommend that the glass be cleaned daily before lighting the stove.**

⚠ **Do not use any material that could scratch or spoil the glass, as scratches may develop into cracks or breaks.**

7.9 REPLACING THE GLASS

DT2010093-05

The door of the stove is equipped with a ceramic glass window 4 mm thick, resistant to temperatures up to 750°C; the glass can only be broken by a strong blow or improper use. Do not slam the door or hit the glass. Should the glass break, only replace it with a spare part from the Superior factory.

Proceed as follows to replace the glass:
- Equip yourself with an appropriate pair of protective gloves.
- Remove the door and lay it on a flat surface.
- Unfasten the screws which can be seen on the inner side of the door.
- Carefully remove the glass clips and the glass.
- If the fibre glass washer and sealing strip are worn, replace them.
- Replace the glass and relocate the clips, refasten the screws taking care not to overtighten them.
- Re-hang the door.

If other problems arise it is recommended that you speak to the local supplier.

7.10 SHUTTING DOWN

DT2011801-00

When shutting the stove down for the summer, proceed as follows:
- remove all pellets from the hopper and feeding auger;
- carefully clean the grate, the grate support and the ash drawer;
- using a steel brush, clean the baffle plate or internal baffle plates of the firebox and coat them using the spray paint, supplied on request, to prevent them from oxidising and consequently forming rust.

⚠ **If the cast-iron parts inside the firebox are not coated, rust could form. This is a natural process, which does not affect the efficiency and quality of the product.**

- clean the boiler;
- clean the flue thoroughly: contact a professional chimneysweep for this purpose;
- clean by removing all dust, cobwebs, etc. from the area behind the inner lining panels once a year, in particular the fans;
- disconnect the power cable from the power supply;

7.11 PROGRAMMING MAINTENANCE

DT2010546-00

⚠ **aaThe scheduled maintenance work listed below must be carried out ONCE A YEAR and prior to starting up the appliance or after a long period of inactivity.**
This work is necessary to ensure that the appliance remains efficient and safe.

- Thorough cleaning of the smoke chamber (see paragraph "**CLEANING THE SMOKE CHAMBER AND BOILER**").
- Check and clean the smoke outlet and flue system.
- Clean away dust and cobwebs from the area inside the cladding.
- Clean moving parts and mechanisms (motors and circulation pump).
- Check the electrical part as well as the connected electronic and water circuit components.
- Check the water level and pressure of the water system, resetting the values, and if necessary bleed the valves and radiators.
- Check that the circulation pump impeller is in proper working order. If it is locked, unscrew the plug from the circulation pump and release the impeller with a screwdriver.
- Check the tightness and state of the gaskets/seals of the glass door, the water system and all the elements subject to wear and if necessary replace.
- Check the seal and tightness of the joints and connecting pipes.
- Check the state of the temperature/pressure relief and safety valves and if they have been activated. Check that they are in proper working order and if necessary replace.
- Carry out all maintenance and checks required for correct operation and adaptation to safety regulations.
- Light the stove in accordance with instructions given in the paragraph "**LIGHTING FOR THE FIRST TIME**".

⚠ **All cleaning and maintenance must be carried out with the power cable disconnected from the power supply.**

8.0 TROUBLESHOOTING

DT2012083-00

⚠ **Some of the problems indicated below may be resolved by following the instructions. All work must be carried out when the appliance is cold and disconnected from the electricity supply (pull out the plug).**
Authorised qualified persons must be contacted, in accordance with current regulations, whenever it is necessary to work on parts inside the cladding or the firebox in order to resolve the problem.
It is therefore recommended that only Superior authorised Service Centres be contacted.
Whenever authorised Service Centre personnel carry out work, they must show an identity card issued by the factory on which the following are printed: stamp and signature of the company and the period of validity of the actual document.
Unauthorised tampering with the appliance or the use of other than original spare parts not only creates situations of risk for operator safety, but invalidates the warranty and relieves the manufacturer from all liability.

PROBLEM	CAUSE	SOLUTION
The control panel display is not lit	The appliance is not powered	Check that the power cable is plugged into the wall socket and connected to the appliance
	Faulty power cable	Replace the power cable (use only original spares)
	Fuses blown	Check the fuses in both the plug and the electronic board, replacing them if necessary. If the problem persists call an electrician
	Faulty control panel	Replace the control panel (use only original spares)
	Faulty flat cable	Replace the flat cable (use only original spares)
	Faulty electronic board	Replace the electronic board (use only original spares)
Safety smoke "ALF 1" stove status	Blocked flue or flue gas outlet	Check and clean the flue and the outlet
	Door open	Check if the door is closed
	Broken smoke extractor	Replace the motor (use only original spares)
	Flue system too long	Check correct installation (see section 4)
	Damaged door sealing gaskets	Check all the gaskets and seals of the door and flue pipe
	Hose connection blocked	Dismantle and clean the hose connection for the vacuum gauge
	Silicone piping blocked or broken	Check and/or replace piping
	Faulty electronic board	Replace the electronic board (use only original spares)
	Grate requires cleaning	Clean the grate (see section 7.1)
	Faulty thermostat	Replace hopper thermostat (use only original spares)
	Badly positioned automatic reset thermostat	Check that the thermostat sensor is correctly positioned
	Temporary power failure during operation	Automatic restart of the stove (see paragraph **INTERRUPTION OF ELECTRIC SUPPLY**).

PROBLEM	CAUSE	SOLUTION
Faulty thermostat "ALF 2" stove status	Faulty pressure control device	Replace the faulty control device (use only originalo spares)
	Failed fill-in of Pellet-charging system	Check the electric connections
Safety thermal "ALC" stove status (Water thermostat in boiler)	Blocked flue or flue gas outlet	Check and clean the flue and the outlet
	Grate requires cleaning	Clean the grate (see section 7.1)
	Faulty thermostat	Replace the thermostat (use only original spares)
	Faulty electronic board	Replace the electronic board (use only original spares)
	Faulty circulation pump	Check the circulation pump. Replace it if necessary (use only original spares)
"PUL" status stove	Temporary power failure during operation without chrono setings	Automatic restart of the stove (see paragraph "**INTERRUPTION OF ELETRIC SUPPLY**")
"NO ACC" stove status	Empty hopper	Fill the hopper
	Grate requires cleaning	Clean the grate (see section 7.1)
	Operating temperature not reached	Empty the grate and restart
	Faulty glow plug (igniter)	Replace glow plug (use only original spares)
	Faulty electronic board	Replace the electronic board (use only original spares)

PROBLEM	CAUSE	SOLUTION
Stove safety device "MASS TEMP" stove status	Blocked flue or flue gas outlet	Clean the flue and the outlet
	Faulty electronic board	Replace the electronic board (use only original spares)
	Faulty limit temperature control sensor	Replace the control sensor (use only original spares)
	Badly positioned smoke sensor	Check that the sensor is correctly positioned (see wiring diagram)
	Incorrect parameter settings	Check parameter settings
Smoke sensor / water sensor in boiler "NO CONN" stove status	No connection between the 2-pin terminal of the smoke sensor or the ambient sensor and the electronic board	Check correct insertion/position of the connector (see wiring diagram)
	Faulty electronic board	Replace the electronic board (use only original spares)
	Badly positioned smoke/water sensor	Check that the sensor is correctly connected
Appliance runs for 9-10 minutes and then goes out	Heat sensor locked	Repeat ignition procedure. If the problem persists, contact an authorised technician
	Combustion gases have not reached the required ignition temperature	Repeat ignition procedure. If the problem persists, contact an authorised technician
	Heat sensor badly connected	Check the wiring and connections
	Blocked flue	Clean flue system
	Failed ignition	See "NO ACC"
	Faulty electronic board	Replace the electronic board (use only original spares)
	Pellet-charging system blocked	Empty the pellet hopper; check and clean the auger and chute

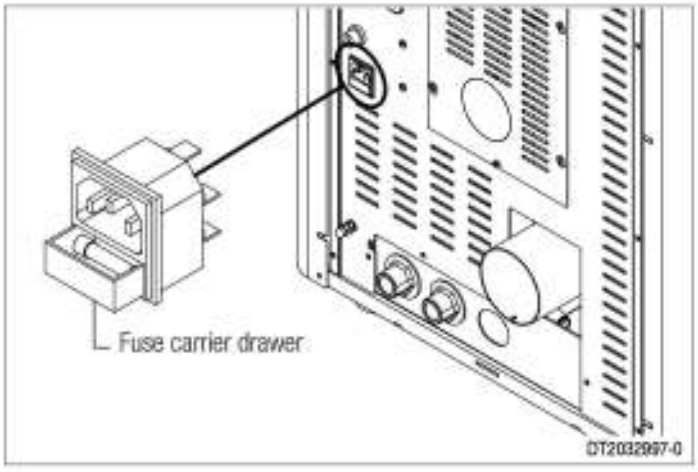
Water temperature sensor "MASS H2O" stove status	The electronic sensor in the boiler has measured a temperature above 90 °C. Faulty water circuit	The temporary shutdown phase of the appliance is activated. The valve discharges water through the vent and expansion pipe. Wait and make sure that the pellets in the grate have finished burning. Wait for the appliance to cool, the water temperature to drop and the relief valve to close. Check for and remove the causes that have made the safety device activate. Check the correct function of the temperature relief valve. Check operation of the temperature/ pressure relief valve and if necessary replace. Check if the water pressure requires making up and if necessary bleed the water system of the appliance and the heating system. Check the water circuit (for example: closed ball valve, badly water connections, air on the water circuit, etc.) Start up the appliance.
	Faulty electronic board	Replace the electronic board (use only original spares)
	Faulty water temperature sensor	Replace the water temperature sensor

⚠ **This instruction booklet contains all the necessary information for installation, operation and maintenance. Only call the Superior service centre after having scrupulously followed all the instructions.**

8.1 REPLACING THE FUSES

DT2010657-02

Fuse on the IEC power socket.
Draw out the fuse carrier and replace the fuse with the spare to be found inside the small drawer.
Type: F4AH250V



GRUPPO PIAZZETTA
CAMINETTI & STUFE

Gesehen
Anlage Nr. A1
Prüfbericht Nr. K5792011Z1
TÜV Rheinland Energie und Umwelt GmbH
Prüfstelle für
energietechnische Einrichtungen

DICHIARAZIONE DI CONFORMITA'
DECLARATION OF CONFORMITY

CE

In accordo con la Direttiva **89/106/CEE** (Prodotti da Costruzione), la Direttiva **2006/95/CEE** (Direttiva Bassa Tensione) e la Direttiva **2004/108/CEE** (Compatibilità Elettromagnetica).
*In accordance with the Directive **89/106/EEC** (Construction Products), the Directive **2006/95/EEC** (Low Voltage Directive) and the Directive **2004/108/EEC** (Electromagnetic Compatibility).*

Tipo di apparecchio (*Type of equipment*)	**Apparecchio per riscaldamento domestico a pellet di legno.** *(Residential space heating appliances fired by wood pellet)*
Marchio commerciale (*Trademark*)	**SUPERIOR**
Tipo (*Type designation*)	**SP 60**
Modelli (*Models designation*)	**SABRINA THERMO – SVEVA THERMO – SAMANTA THERMO – SIRIA THERMO.**
Uso (*Use*)	**Riscaldamento domestico in edifici residenziali con fornitura di acqua calda per riscaldamento centralizzato.** *(Space heating in residential buildings whit supply of hot water for central heating)*
Costruttore (*Manufacturer*) **Indirizzo** (*Address*) **Telefono / *Fax*** (*Telephone / Fax*)	**GRUPPO PIAZZETTA S.p.A.** Via Montello, 22 - 31011 Casella d'Asolo (TV) – Italy (+39) 0423 5271 - (+39) 0423 55178
Luogo di produzione (*Factory*) **Indirizzo** (*Address*)	**GRUPPO PIAZZETTA S.p.A.** Via Montello, 22 - 31011 Casella d'Asolo (TV) – Italy
Laboratorio notificato (*Notified laboratory*) **Indirizzo** (*Address*)	TÜV Rheinland Immissionsschutz und Energiesysteme GmbH Am Grauen D – 51105 Köln (Pol) GERMANY

Le norme armonizzate o le specifiche tecniche (designazioni) che sono state applicate in accordo con le regole della buona arte in materia di sicurezza in vigore nella CEE sono:
The following harmonised standards or technical specifications (designations) which comply with good engineering practice in safety matters in force within the EEC have been applied:

Norme o altri documenti normativi *(Standards or other normative documents)*	Rapporto di collaudo - Schede tecniche *(Test report – Data sheets)*
EN 14785 **EN 603351-1 EN 60335-2-102** **EN 55014-1 EN 61000-3-2 EN 61000-3-3** **EN 55014-2**	K5792011Z1
Restrizioni particolari (*Particular conditions*)	-
Informazioni marcatura CE (*CE marking information*)	Vedi allegato *(See enclosure)*

In qualità di costruttore e/o rappresentante autorizzato della società all'interno della CEE, si dichiara sotto la propria responsabilità che gli apparecchi sono conformi alle esigenze essenziali previste dalle Direttive su menzionate.
As the manufacturer's or the authorised representative of the company established within the EEC, we hereby declare under our sole responsibility that the equipment compiles with the essential requirements envisaged by the aforementioned Directives.

Data di emissione
Date of issue

31.05.2011

Nome e firma di persona autorizzata
Name and signature of authorised person

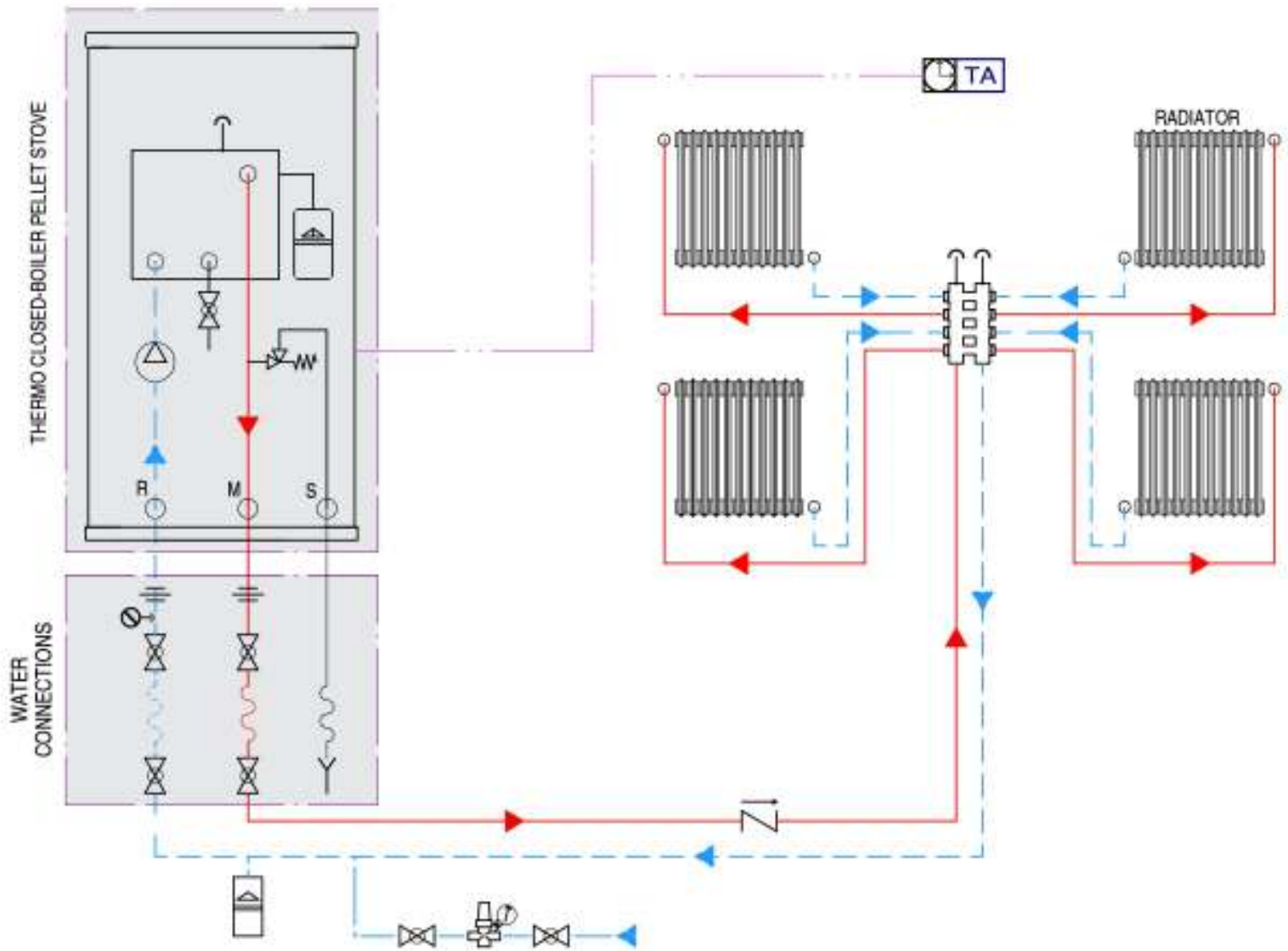
(Carlo Piazzetta)
(Amministratore delegato – Managing Director)

INSTALLATION OF THE RADIATOR HEATING SYSTEM AND CONNECTION TO ROOM THERMOSTAT

The diagram is given purely as a guide.

Contact a qualified heating plumber to ensure correct installation.

To connect the appliance properly to the system, read the sections "WATER CONNECTIONS" AND "WATER PIPE CONNECTIONS".



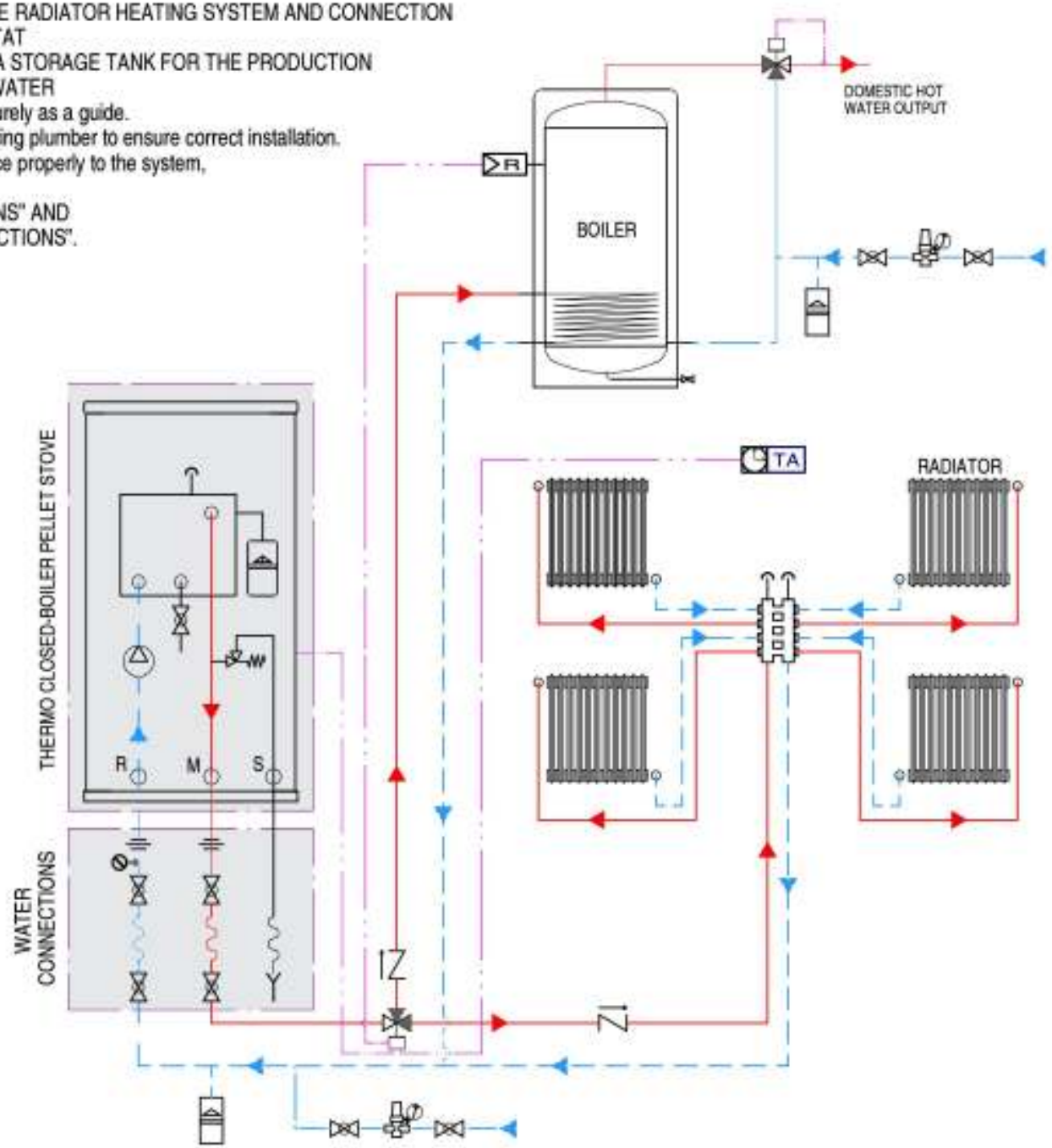
KEY

- Ball valve.
- Safety valve.
- Manometer.
- Check valve.
- Heating delivery.
- Heating return.
- Mains water supply.
- -Domestic hot water
- Electrical connections.
- TA - Room thermostat.
- Water pump.
- Automatic air vent device.
- Feeder mechanism with manometer.
- Expansion tank.
- Hose.
- R - Return.
- M - Delivery.
- S - Pressure relief valve "S" (3 bar).

DT2033027-4

INSTALLATION OF THE RADIATOR HEATING SYSTEM AND CONNECTION TO ROOM THERMOSTAT
COMBINATION WITH A STORAGE TANK FOR THE PRODUCTION OF DOMESTIC HOT WATER

The diagram is given purely as a guide.
Contact a qualified heating plumber to ensure correct installation.
To connect the appliance properly to the system, read the sections "WATER CONNECTIONS" AND "WATER PIPE CONNECTIONS".



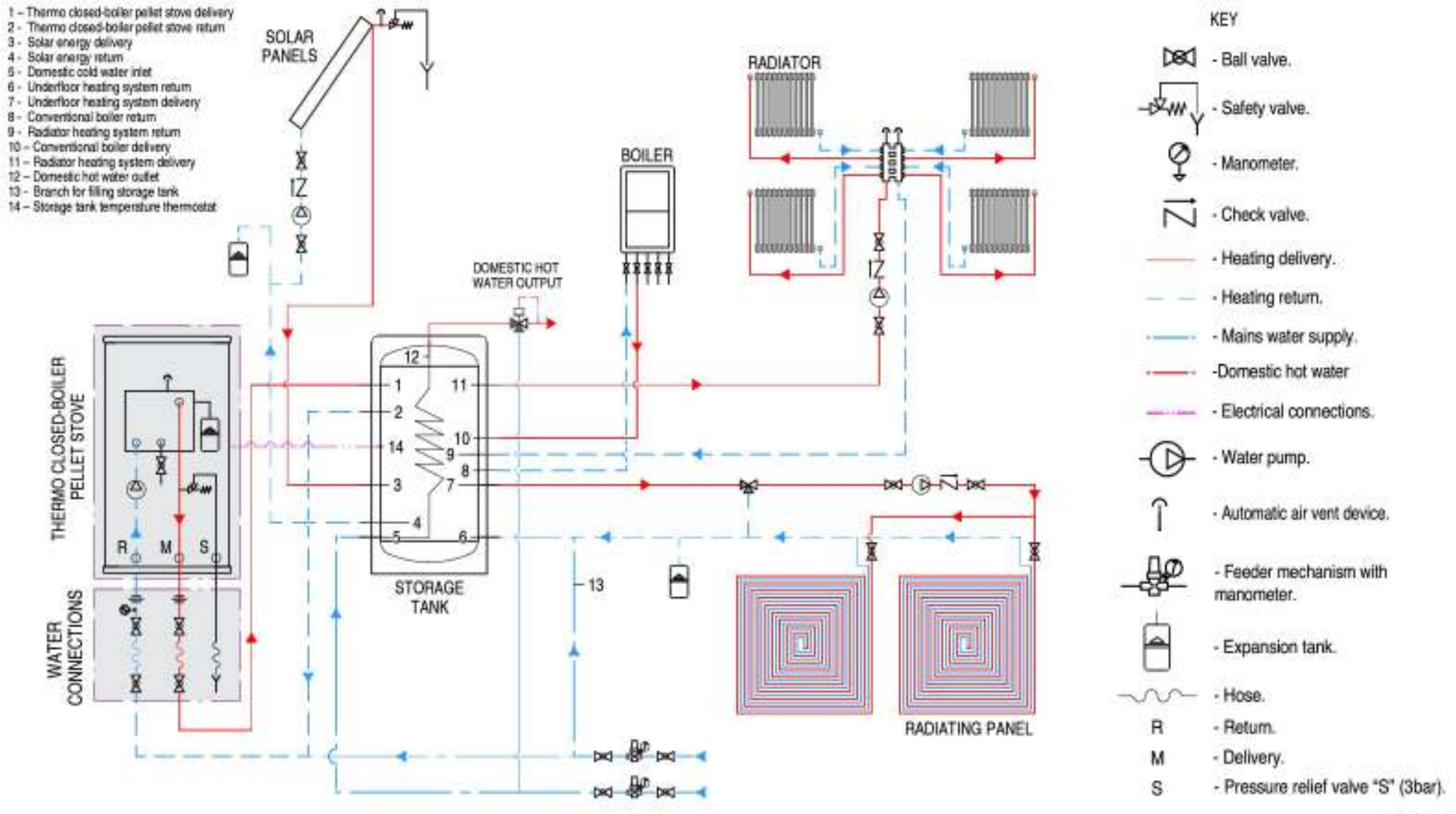
KEY

- Ball valve.
- Safety valve.
- Manometer.
- Check valve.
- Heating delivery.
- Heating return.
- Mains water supply.
- -Domestic hot water
- Electrical connections.
- TA - Room thermostat.
- Water pump.
- Automatic air vent device.
- Feeder mechanism with manometer.
- R - Thermostat.
- Expansion tank.
- Hose.
- R - Return.
- M - Delivery.
- S - Pressure relief valve "S" (3 bar).

DT2033028-4

INSTALLATION IN COMBINATION WITH WALL BOILER,
SOLAR PANELS AND BOILER WITH STORAGE TANK, RADIATOR HEATING SYSTEM AND UNDERFLOOR RADIATING PANELS
The diagram is given purely as a guide.
Contact a qualified heating plumber to ensure correct installation.
To connect the appliance properly to the system, read the sections "WATER CONNECTIONS" AND "WATER PIPE CONNECTIONS".

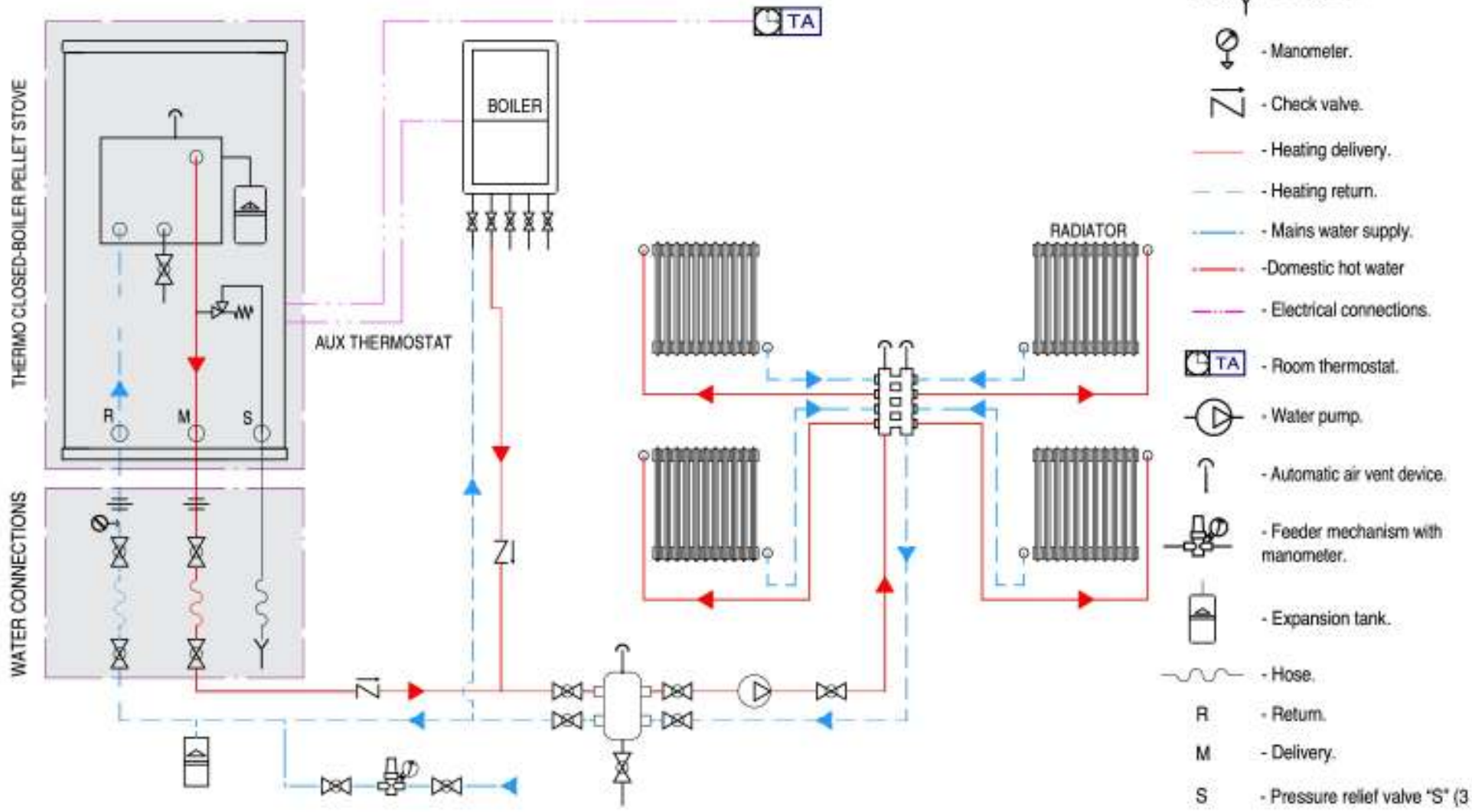
INSTALLATION MUST BE CARRIED OUT IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THE INSTRUCTION BOOKLET AND WITH NATIONAL AND LOCAL REGULATIONS.



DT2033029-3

INSTALLATION IN COMBINATION WITH WALL BOILER AND CONNECTION TO OUTPUT THERMOSTAT
The diagram is given purely as a guide.
Contact a qualified heating plumber to ensure correct installation.
To connect the appliance properly to the system, read the sections "WATER CONNECTIONS" AND "WATER PIPE CONNECTIONS".

INSTALLATION MUST BE CARRIED OUT IN ACCORDANCE WITH
THE INSTRUCTIONS CONTAINED IN THE INSTRUCTION BOOKLET AND WITH NATIONAL AND LOCAL REGULATIONS.



DT2033069-4

Piazzetta Pellet Stove Guide to Setting Flue Parameters (Installer Information Only)

This guide is supplementary to the Installation Instructions, which should be read before setting the flue fan parameters. It must only be carried out by an authorised installation engineer with the correct equipment. Whilst the appliance will normally operate as set in the factory, for optimum performance the flue gas fan must be adjusted to allow for variations in individual flues.

General
Before starting ensure the hopper contains enough pellets. Pellets must be fresh and dry. Remove any unburnt pellets and ash from the grate.

Ensure any controls (boiler stove) are calling for heat.

Note that the first ignition attempt may fail to 'No lit' as the auger takes time to fill before dropping pellets into the grate. If this happens restart the stove.

Connect a suitable micromanometer / draught gauge to the pressure tapping point on the rear of the stove (remove brass cap nut). The draught gauge needs to measure values of up to about 120 Pascals (Pa) with 1 Pa steps. (A gas CO / CO2 analyser such as the Anton Sprint usually have a suitable pressure scale). Note the pressures are negative.

Record the pressure at each setting after adjustment for future reference.

See relevant section as to using the remote or the keypad (always use the remote where it is supplied)

Setting Parameters using the Remote Control

Start the appliance.

Open the flap on the remote and follow the procedure in sequence

Note: *esc* returns you to the previous memory, *set* confirms the menu or setting

- Press *menu*
- Use the up/ down arrows to find *menu parameter*
- Press *set*
- Use the up/ down arrows to find *setting smoke ext*
- Press *set*
- Use the up/ down arrows to find *A9*
- Press *set*
- Use the *set* button to scroll through the parameters and adjust each one as necessary as you get to it. If you pass the parameter you need to adjust press *esc* to return to the previous menu and start again.

Check and adjust if necessary parameter 16P. **Note** this must be done during *Phase 1*

Note: The setting value of the parameter is adjusted using the up/ down arrows and watching the micromanometer to obtain the correct pressure. Changes to the pressure are immediate but wait for it to settle and record the final result (Pa).

- Press *set* to confirm the setting and move to the next parameter

Parameter 17P must be set during *Phase 2* adjusting as above to obtain the correct pressure

The rest of the parameters must be set when the whole flue system is up to temperature. For boiler stoves the water temperature must also be at least 60 deg C.

Note the parameters 18P to 22P are the settings for the different power output levels 1-5, or for stoves with 4 power levels 18P to 21P

- Access the highest power level (22P or 21P) first using the method above
- Adjust the setting to obtain the correct pressure and *set* to confirm

Adjust the other parameters in reducing order 21P, 20P, 19P, 18P and *set* each to confirm

After adjusting the parameter exit the programming by pressing *menu*

Pressure values must never be lower than 60 Pa (the limit of safety threshold). If higher pressures are set than recommended it can cause pellets to 'float' in the grate and not light.

Parameter Pressure Settings
The pressure settings are obtained from Robeys Limited 01773 820940 or contact info@robeys.co.uk You will need to have the Firmware version information. To obtain this press the select key 'up' key for 5 seconds to display the version.

After setting parameters remove the micromanometer and ensure that the brass cap nut is refitted

Setting Parameters using the Keypad on the Stove (Superior)

Identify the microprocessor and record the details. To do this switch on the stove, the identification code appears for a few seconds on the display, press the *3 set* key followed by the *4 on/off* key
Note the keys have a number in the corner which is used for identification
Key *3* confirms any setting and moves the display to the next parameter
Pressing key *4* at any time will exit from programming.

Start the stove and wait for it to complete the 20 second stage *Start o*

- Press key *5* for 10 seconds to obtain the input port to the programming functions
- Use keys *1* and *2* to obtain code E9 on the display
- Press *3 set* to enter the programming mode, showing 01P
- Press *3 set* to move to the next parameter and repeat until 16P appears

Check and adjust parameter 16P **Note** this must be done during the ignition stage *Start oo*

Note: The change made to parameter 16P is not sensed by the micromanometer immediately, at this stage set the pressure between 110 and 120 Pa using keys *1* and 2 and watching the micromanometer to obtain the correct pressure. To check if the new setting is correct it will be necessary to go through the other parameter settings, exit the program, then after stabilising re-enter the program and check the value on the micromanometer. Repeat if necessary.

- Press *3 set* to confirm the setting and move to the next parameter
- Exit the program by pressing key *4*
- Wait until the stove enters the stabilisation stage *Start ooo*
- Enter the programming as before and go to parameter 17P
- Check the pressure, at this stage it is advisable to have a pressure between 100 and 110 Pa
- Adjust if necessary as above

Exit the program by pressing key *4*

The rest of the parameters must be set when the whole flue system is up to temperature. For boiler stoves the water temperature must also be at least 60 deg C.

Note the parameters 18P to 22P are the settings for the different power output levels 1-5, or for stoves with 4 power levels 18P to 21P. These are now set for their true operating powers.

- Enter the programming as above
- Go to parameter 18P, the pressure should be 65-70 Pa, adjust as necessary and allow it to settle
- Press *3 set* to confirm the setting and move to the next parameter
- Check parameter 19P, the pressure should be 65-70 Pa, adjust as necessary
- Press 3 to confirm, move to 20P, the pressure should be 75-80 Pa, adjust as necessary
- Press 3 to confirm, move to 21P, the pressure should be 75-80 Pa, adjust as necessary
- Press 3 to confirm, move to 22P, the pressure should be 75-80 Pa, adjust as necessary
- Recheck parameters 16P and 17P

Exit the program by pressing key *4*

After setting parameters remove the micromanometer and ensure that the brass cap nut is refitted

Product serial number, to be quoted when requesting service from the After-Sales Service Centre.

Technical Department - Cod. 8070241701 / 0120000506 rev. 01 - 09-2010 SUPERIOR

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